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EDITORIAL

¬REE EXPRESSION

What does it mean?

magazine without readers is not much magazine without reducts to the small not last long. In my position of Managing Editor I'm frequently reminded of this. Indeed, it is my constant quest to determine what you, the readers, want, and to see that you get it in Wild. To do this I have to 'put myself in your shoes' to see it your way when trying to decide what to include in, and what to leave out of, each issue. This affects every aspect of the magazine, from the photos and articles used to the advertisements accepted. With so many readers (some 52 000 of you!) it is not always an easy task, and we have to work hard to get it right. One way we try to do this is through our regular reader surveys. In these, you tell us (often in no uncertain terms!) what you dislike, and like, about Wild. And woe betide us if we don't listen! It's clear that you want an attractive informative and accurate magazine. In addition, you demand that it be independent and entirely aboveboard in all its dealings

We have no trouble with this. Indeed, it reflects our own philosophy. Difficulties arise, however, when interest groups seek to direct the magazine for their own ends some individuals seek unwarranted exposure to bestieve the season of the

views, w'll boycott your magazine.'

The great majority 'play it straight.' None
the less I am frequently required to resist these
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be difficult Indeed, despite Wilf's vigorously to
pubeld independence, sometimes considerable pressure is applied. But it's a task made
to be be breaked by the knowledge that I have
your support. If we allow ourselves to be
builded out of our independence and integrity; un
if we do not uphold the right of freedom of responsion, what hope is there—for any of us?

Your chance to be Editor of Wild and Rock

The imminent departure of Wild Editor Nick. Tapp for overseas after three and a half years in harness means that we are looking for someone to replace him. The position provides an opportunity to combine an active interest in one or more of the rucksack sports, and conservation, with a pivotal role in producing Australia s' wilderness adventure producing Australia s' wilderness adventure Australia's climbing magazine). We seek a person who is dedicated and hard-overking, with a love of the English language, and one who pays meticulous attention to detail If you



Chris doing it by the book in the Grampians, Victoria

are an experienced professional editor used to working to the highest standards, to working under pressure to meet deadlines—and are actively involved in at least one of the ruck-sack sports—16 like to hear from you, in writing, before 7 January 1993. Naturally, all enquiries will be treated in strict confidence. We offer a competitive salary and excellent conditions to the right person, who'll work in our South Yarra (Melbourne) office from the beginning of February.

Business as usual

When we entered the 1991 Australian Small Business Awards we had no idea what to expect. So you can imagine our pleased surprise when it was announced that Wild Publications Pty Ltd had been selected among a small number of finalists from hundreds of entries. The recent growth of our magazines Wild and Rock encouraged us to 'give it another go' this year. Again, we made it to the finals. This year it was an even bigger affair and the winners were announced at a reception attended by 1500 people. I was overseas at the time and my wife Sue was present on behalf of Wild. It was just as well that she was, because Wild was announced as runner-up in its division, and Sue was called on to accept the award from Joan Kirner (acting in what was to prove one of her final roles as Premier of Victoria) and to make the acceptance speech.

Chris Baxter

Managing Editor

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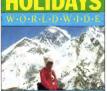


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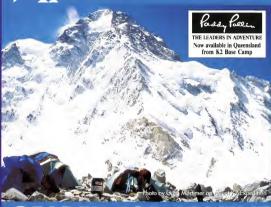
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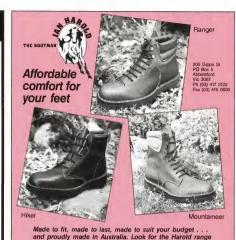
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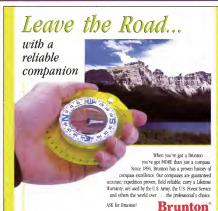
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DEC-FEB 1993



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PHOTOS WANTED!

We're in the process of putting together The 1993 Paddy Pallin Catalogue and would love to see any excellent quality transparencies of either Paddy Pallin equipment 'aut there' or other stunning or humaraus shats. Payment is made far any shats used. Send your transparencies to: Huw Kingston, Paddy Pallin Pty Ltd, Unit 14F, Hordern Place, Camperdown, NSW 2050, A copy of our Guidelines for Photographers is also available from this address.

A NEAR MOVE

Paddy Pallin Perth has recently moved 50 metres dawn the road to a much bigger building. Daryl and staff loak forward to welcoming all regular and interstate custamers to the new shop.

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USH ATHLETES GET PHYSICAL

Subaru 'Classics'

Gurney wins series again

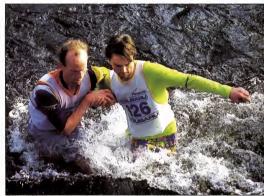
New Zealand's Steve Gurney has won the 1992 Subans Series of multi-sports endurance events for the second year running. The series is made up of three events: the Summer Classic on Victoria's west coast (which was won by David Flockart) and the Winter and Spring Classics in and around the high country of south-asstern Australia. Gurney regarded as a pecialist in his field, won the series from Australians Rod Hislop and David Flockart.



The sun shone on participants in the 1992 Subaru Winter Classic—this one is seen tackling the ski leg on the first morning. **Right**, a little teamwork on one of the Classic's two demanding 'cross-country

As it did in 1991, the Winter Classic began with only a maginal cover of snow for the initial ski leg, and skis had to be carried for about four kilometres. Conditions were near perfect, however, for the remaining six legs of running, cycling and paddling, Curney eventually won the winter event from Anthony Nelson and Tom Crebbin. Hislog and Flockart were placed fourth and fifth, respectively.

The 1992 Spring Classic was held in the Mt Kosciusko-Canberra area on the long weekend of 3-5 October, and was made up of an exhausting cocktail of cross-country skiing, track cycling, road cycling, running and anddling—over a total distance; in three days,



of a staggering 293 kilometres. Gurney again showed his style, winning in a total time of just over 22 hours, ahead of Hislop and Crebbin. Flockart was further back in seventh place.

It has been announced that the Subaru motor company will not be continuing its sponsorship of the event next year. Consequently the organizer, Peregrine Adventures, is on the look-out for a suitable sponsor. Any takers?

Corrections and amplifications

The minor heading in the advertisement for the Australian School of Mountaineering on page 97 of Wild no 46 should have read 'Spring Rock Courses 1992', not 'Autumn...'. The

course dates given are correct.

Outgear Australia was omitted from the text of the Gear Survey of rucksacks in Wild no 46. See page 81 of this issue for details.

NORTHERN TERRITORY

New wave:

Motorists travelling in the Northern Territory can now listen to a new FM radio station, FM88, which operates out of Litchfield National Park and broadcasts information which is useful for park visitors. Said to be far more effective than pamphlets, the system puts out an eight-minute message which includes information on history, local attractions, walking tracks and camping, and warnings. The system operates 24 hours a day and uses a solar-powered transmitter.

NEW SOUTH WALES

Paddy Pallin Classic

Heavy snow greeted skiers in the 1992 Paddy Pallin Classic, run over a 46 kilometre course between Perisher Valley and Charlottes Pass. Winners of the main race were Mike Edmondson, a local skier (and Paddy Pallin mani) well known to Wild readers, and Stephen Smith, who tied for the event in 2 hours 49 minutes 17 seconds. Two minutes further back was third place-getter Michael O'Sullivan.

The shorter freestyle event, with a 25 kilometre course, was won by Tom HormBlow in a little over one and a half hours. Not far bebind was Rohan Pitchford in second place, and Wayne Pethybridge came third. The first woman across the line was Fiona Cates in a time of 1 hour 54 minutes 5 seconds, a massive 15 minutes ahead of second place-getter Cecilia Amundsen. Third place went to Cate Purcell PLEASE AND OUTE

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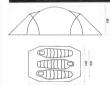


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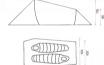
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Escalade 93

On 24 and 25 April 1993 the Blue Mountains town of Mt Victoria will host a festival of events for climbers and all those interested in the mountain environment. The festival will run over two days and will use many of the town's historic buildings for lectures, slide shows, a traders' display area and a photographic competition. The old-style jecture

York Rd, Mt Victoria, NSW 2786-telephone (047) 87 1480

Great North Walk

An article published in Wild no 39 made mention of the fact that the Great North Walk between Sydney and Newcastle was still under construction and was marked only with tape in sections. Now, however, the popular also like to speak to two men who caught a taxis from Kings Cross to Botany Road, Rosebery, at 5.53 am on 12 August. The two men (both described as causcaian, about 23 years old, clean-shaven and with blond, collar-length hair, and around 180 centimetres in height) attempted to pay their fare with the victim's obel-harge card. One of the men had a silver each control of the collar of the collar of the the other was of solid build, wore a darkcoloured parka and a diver's wastle.

Diack's car, a white 1991 Holden Berlina (registration number RRD 484), was found at Singleton Railway Station at six o'clock in the morning on 10 August.



The start of the 42 kilometre Kangaroo Hoppet at Falls Creek, Victoria—Australia's World Loppet event. **Right**, Park Byung-Chul of Korea won the 21 kilometre Australian Birkebeiner for the second year in succession. *Glenn Tempos*.

theatre will run climbing and mountain films all weekend and there will be an exhibition of Jonathan Chester's photography. Other leading photographers have also been invited to exhibit. For sport climbers, the festival will be the venue for the Australian National Championships on a purpose-built 15 metre overhanging wall.

The festival programme will cater for everyone interested in climbing and the mountains. Topics range from sport climbing iniuries, training, women's climbing, equip ment and photographic techniques to mountaineering exploits. The Australian première of Baseclimb, the film of the climb and BASE jump of Trango Tower, will be screened on Saturday night with an address by Glen Singleman and Nick Feteris, who made this remarkable film. Other speakers over the weekend include Greg Mortimer, Kim Carrigan, Mark Baker, Louise Shepherd, Lincoln Hall, ex-Olympian David Hislop, and David Humphries, a doctor specializing in climbing-related sport injuries. ABC newsreader and climber Richard Morecroft will host the keynote proceedings. Wild Publications is a sponsor of Escalade 93.

The festival will also be a great social occasion, with a wide cross-section of mountain people together for a weekend of climbing, watching, listening, competing and socializing.

For more information on the event, and booking details, contact Escalade 93, 34 Mt

250 kilometre track has been completed and has won an award for environmental lourism from the New South Wales tourism industry. A kit containing maps, information on walk distances, facilities and transport can be purchased from outdoor shops, tourist offices, or the Department of Conservation and Land Management, 23 Bridge St, Sydney, NSW 2000—telebone (20/228-631).

Adrian Cooper honoured

Sydney Crammar School teacher Adrian Cooper has been awarded the Order of Australia Medal for his work with young people. Cooper Repain to Duke of Edinburgh Awards scheme at the school in 1960, has been involved with the Scouting movement and since 1960 has managed the school's Endouved the Cooper of the State of th

Blue Mountains murder

Police appealed for information after bushwalkers discovered the body of a man on the Narrow Neck Plateau. Richard Diack, a television executive for the SBS network, was found dead on 10 August with a massive head wound caused by a blow to the back of the head believed to be from a heavy nock.

Diack was last seen alive at '1245 pm on 9 August at the Scenic Railway at Katoomba. He was wearing a white towelling hat, an off-white, long-sleeved shirt, knickerbockers, white socks, and grey and blue New Balance joggers, and he carried a white, olive green and marron ski jumper.

Police are eager to hear from anyone who saw Diack on the day of his death. They would Anyone who may have seen someone driving this vehicle, or who has any information which may assist the police with their investigation, is asked to call North West Region Homicide detectives on (02) 689 7778.

Vandaliem

Water titlems in Wild on Deschkos Hut near Water titlems in Wild on Deschkos Hut near Water Stages, Wild no 45, and Information, Wild no 40 reported first that the hut was to be removed, then that it had won a reprieve when the Kosciusko Huts Association and the National Parks & Wildlife Service of New South Wales took over its management. I now appears that the original wood-burning stove was the work of the Water Stages of the Water Stages

VICTORIA

Kangaroo Hoppet results

A cold and overcast day greeted competitors, and spectators, in the 1992 Kangaroo Hoppet, held at Falls Creek on August 29. The event, the first in the series of 12 World Loppet crosscountry ski races held world-wide during

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BACK COUNTRY	dry climate, travel, general outdoor wear		\$139.00
TRAILITE	non alpine & 3 season hiking, established tracks		\$169.50
RANDONNEE	4 season, established tracks		\$189.50
RANDONNEE SYMPATEX	4 season, established tracks, including light snow or wet conditions		\$209.50
TRAIL	4 season, alpine, snow & wet or extreme	(36-47)	\$219.00
	rugged conditions	(48-50)	\$239,00
TRANSALPINO	4 season, ragged alpine, snow/ice, basic mountaineering		\$299.50



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1992, attracted almost 1200 entrants between the ages of four and seventy-nine. The 1992 event was again made up of three races: the 7 kilometre loev Hoppet, the 21 kilometre Australian Birkebeiner, and the main event,

the 42 kilometre Kangaroo Hoppet. Winner of the main race was Norwegian Gudmund Skjeldal in a time of 1 hour 47 minutes 16.7 seconds, only half a second ahead of Austrian Walter Mayer. The two were neck and neck for the entire race. Third place went to Krister Sirgard of Norway. Australia's Anthony Evans finished in tenth place.

The first woman home was Switzerland's Beatrice Grunenfelder in 2 hours 12 minutes 49.2 seconds. Second position went to Camille Melvey in 2 hours 17 minutes 1.5 seconds; this is the best result ever obtained by an Australian woman in a World Loppet event. Melvey finished just ahead of Switzerland's Anne-Marie Bosch.

Great Dividing Trail

Plans are under way to construct a walking track which will extend for 130 kilometres on public land in central Victoria, linking many towns and points of interest. The track, to be known as the Great Dividing Trail, will meander from Ballarat to Castlemaine, with a major arterial track from Bacchus Marsh joining it in Davlesford.

Trail 'head-plant' fees

Wild Diary

Australian Canno

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1007

1993

December 12

January 4-8 Tastrog 1993

February 12-13 Speight's Coast to

10-11 NSW Automo 24-hour Rogains

Some of the cross-country trail-grooming in the Falls Creek area during the 1992 ski season (for which users paid the Alpine Resorts Commission a fee) apparently left a lot to be desired. For example, trails in some areas were made over creek depressions, with results like those pictured

Federation ice rescue practice

The Federation of Victorian Walking Clubs has an active search-and-rescue section which provides experienced back-country skiers and bushwalkers as volunteers to help in largescale searches for missing people. The SOUTH AUSTRALIA

Walking strong

Wirrina Walking Week 1992 took place between 18 and 27 September. Organized by the Bush & Mountain Walking Leadership Training Board of South Australia, the 'week consisted of over 150 events in Adelaide and in rural and wilderness areas of South



Sun spot? Wild trail inspector Michael Hampton treading warily in Sun Valley, Falls Creek, and wondering about a refund. Tempest

federation has long been involved in searching for walkers and cross-country skiers; in recent years it has also assisted with searches for skiers who have strayed from downhill skiing resorts

In conjunction with the Police Search and Rescue Squad, the federation conducted a successful practice of stretcher-hauling techniques on steep slopes at Falls Creek early last winter. Inexperienced members were given an introduction to steep snow and ice techniques while those with mountaineering experience gained valuable practice in stretcher handling.

Peter Campbell

TASMANIA

Park entry fees for bushwalkers

Bushwalkers in Tasmania's National Parks can expect to pay entry fees within a year. The proposal, contained in a Parks Department report, is expected to go to State Cabinet soon. The method of charging, and how many of Tasmania's 14 National Parks are to be included in the plan, have yet to be decided. At present only the Overland Track in the Cradle Mountain-Lake St Clair National Park and the South-west National Park, carry minimal entry fees. Although the Parks Department claims that charges are necessary to maintain the parks, train rangers and protect wildlife, controversy already surrounds the likely cost and difficulty of collecting the fees. The government will also consider introducing a system of passes for facilities and services, such as camping in the parks.

Paul Macpherson

Australia and Victoria. It included a Walk for Lunch and a Walking Expo and ended with the Walk for Wilderness, organized by the Wilderness Society.

OVERSEAS

Australian Makalu Expedition

In September 1993, a group of Australian mountaineers will attempt to become the first Australians to climb the world's fifth-highest peak, Makalu (8463 metres), in the Nepal Himalayas. Readers may join this expedition as part of a support trek, spending some time in Kathmandu before trekking as far as Makalu Base Camp and slightly beyond. The trip will cost \$4500 ex Australia, Further information can be gleaned from Wil King on (02) 261 1302, or lan Collins on (02) 250 4928. The other climbers in the team are Michael Groom, Jonathan Leicester, Warwick Payten, Mark Squires and Duncan Thomas, Australians who have attempted Makalu include Greg Child and the late Mark Moorhead.

Zimbabwe white-water festival

Nineteen ninety-one saw the first raft race on the Zambezi River, which flows over the massive Victoria Falls in Zimbabwe. The race was held on a stretch of the river below the falls. The 1992 race, held during November, was incorporated into a 'Frontiers River Festival' made up of three competitions; the raft race, a white-water kayak race (on the same course as the raft race), and a one-day K1 kayak race from Kazungula to the Victoria Falls. The less adventurous were able to sample golf, sundowner cruises on the Zambezi, and tours of a nearby crocodile farm.

Readers' contributions to this department, includin colour slides, are welcome. Typed items of less than 20 words are more likely to be printed. Send to the Edito Wild, PO Box 415, Prahran, Victoria 3181.

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Forest strategy dodges the issue

Forests under fire

All across the country, our forests are under assault. The woodchip industry, conservative political approaches, 'economic rationalism' and the insatiable demands of the woodchip industry combine to produce an almost irresistible force resulting in forest destruction on a widespread scale.

So says a caption in the August issue of Victorian Wilderness News, the State newsletter of the Wilderness Society. It accompanies a map which identifies 'forests under fire' in every State of Australia. In July, just months after the failure of its proposed national resource security legislation, the Federal Government released a draft statement of national forest policy, which it put together with the State and Territory Governments in response to reports from various bodies, including the Resource Assessment Commission. According to a report in Victorian Wilderness News, the draft policy is likely to mean that the Federal Government will back away from any action likely to threaten the rights of individual State governments to develop forest resources. The society says that the draft policy 'contains no information...on the state of Australian forests, the structure of the timber industry and the extent of plantations'. The three reports on which the policy is based, especially the RAC's Forest and Timber Industry Final Report, contain much evidence to support the view that there has to be a major change in the way the Australian timber industry operates, but the draft policy barely acknowledges this. One of the government's major arguments is that support for the timber industry is vital for protecting jobs. But the shift towards woodchip production and export and the relative decline in saw-log production is in fact costing jobs. Export woodchipping', the Wilderness Society says, 'accounts for about 45% of all wood removed from native forests. This sector employs the grand total of 808 people, just 2% of the industry's workforce.' And the old-growth forests which the RAC report said could not be logged while preserving their essential attributes? The Wilderness News report quotes Federal Minister for the Arts, Sport, the Environment & Territories, Ros Kelly, who said, 'A commitment to have the best of our old-growth forests and wilderness protected by 1995 will go a long way to resolving the contentious forestry debate'; not surprisingly, in response to this 'assurance', the report asks: 'How much is the best? Just what will be left standing in 1995?"



Safe? Silver wattles and native grasses, Goonmirk Rocks, Errinundra National Park, Victoria. All photos Paul Sinclair

The outlook for Victoria's native forests in the wake of the State election on 3 October is particularly grim according to the Wilderness Society. The Liberal-National Party coalition led by leff Kennett released its forest policy during the final week before the election. Kennett had announced that he intended to delay the release of several policies, including the one on forests, until after he had won government-to avoid confusing electorsbut bowed to community outcry and made the policies public the following day. Reaction from environment groups was swift and unequivocal. The coalition's forest policy, said the Wilderness Society, went '...against market trends, treated community concerns with contempt, and set the environment gains of the last few years reeling back to the dark ages'. It contained provision for continued clear-felling and woodchipping of native forests and the construction of 'a world-scale pulp mill': it did not give a timetable for the move to timber production based on plantations. The coalition subsequently won a significant majority in both Houses of Parliament, and new Premier Kennett appointed Mark Birrell, formerly Shadow Environment Minister, to the positions of Minister for Conservation & Environment and Minister for Major Projecte.

The picture for the Sate's forests was already gloom, as summarized in Victorian already gloom, as summarized in Victorian Wilderness Nims in October. A study set up by Wilderness Nims in October. A study set up by Department of Conservation & Environment to Environment to Environment to Environment to 1513 million on native forest logging operations during 1991–92. Victoria's forests are being reduced to woodchips and exported to Japan at a rate of 420 000 tonnes a year. Logged aross in elevated parts of Sax Gipps-land regenerate at rates as low as 22 per cent. And there is a freedy enough timber in plantations to supply the Sate's needs, yet the loceing of native forests continues.

According to a Victorian Wilderness News report, a struggle is imminent over remaining pockets of valuable old-growth forest in East Gippsland. At the time of its publication, conservationists were preparing to blockade the catchment of Ellery Creek, where the then



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120 x 48	5	48 x 11 Ø	1.18
180 x 48	5	48 x 15 Ø	1.60

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Department of Conservation & Environment planned to make a road during the spring despite the decision of the then Minister for Conservation & Environment, Barry Pullen, to block logging in the area. The report speculates that the road was planned in anticipation of a change of government and the expected 'open slather in-old-growth forests.' The Wilderness Society claims that only enough of such forests remain to support four years. To do your bit for the forests, see Action Rox item.'

Green export

Paul Giding, executive director of the environmental group Gerespacer Australia, will become executive director of the worldwide organization Greenpace unternational on 1 February 1993. Gidding has been head of Greenpace Calims, the number of its period, Greenpace claims, the number of its innacial supporters has increased from 38 000 to 130 000. Before that, Gidding worked on Sweep least basic statistics "Clean waters, clean seas' campaign and was co-ordinator of the Sweep levis Bay' campaign, which halted the establishment of a new naval base on the New South Wales east coast.

Greenpeace Australia's annual report for 1991 noted that three of its campaigns had achieved significant success during the year: the establishment of a 50-year ban on mining in Antarctica: a moratorium on drift-netting: and a moratorium on French nuclear testing. In the same period the organization enjoyed an increase in membership of 28 per cent and a growth in its income from \$6.2 million to \$7.8 million. The report says: 'This confronts the myth that people's active concern for green issues diminishes in difficult economic times. Despite the increases, however, Greenpeace recorded a small deficit over the year, 'which is of concern and reflects the increased costs of raising funds in a recession

Greenpeace Australia continues to operate without accepting donations from corporations or form governments. Some of its funds got of Greenpeace international—in support of the Rainbow Warrior II and to assist with campaigns in other countries where it is harder to raise money. A 1991 review of operations highlights important aspects of the way Greenpeace works it confronts environmental abuse and encourages people to become more involved with environmental en

Good effort

In response to the Australian budget in August, the Director of the Wilderness Society. Karenne Jurd, claimed that during the next four years the society and other forest conservation groups would spend more on forest protection than the Federal Government.

Ducking for cover

Conservationists and others have long been concerned about aspects of legalized duck shooting, including questions of cruelty, shooting endangered species, and lead

pollution of waterways. Indeed, a number of countries, and several Australian States and Torritories have addressed some or all of these issues by banning duck shooting outright, banning the use of lead shot, or placing other restrictions on duck shooting. Wild no 46 carried an inserted card from the conservation group Campaign Against Duck Shooting (CADS), which called on readers to take action to oppose duck shooting. The nature of the response from the Victorian Field & Game Association, or at least its 'Education Officer'. can be gauged from his letter published in Wildfire on page 97. True to his threat, he wrote to Wild's advertisers individually. informing them that '...as an advertiser in Wild your company and its products will be subject to...bans. These bans will stay in place until I receive an undertaking from you that you will no longer advertise in Wild or that I obtain an undertaking from the publishers of Wild that they will cease publishing anti-hunting propaganda.' Needless to say, no such under-

Action Box

Readers can take action on the following matters covered in Green Pages in this issue.

Write to the Prime Minister, Paul Keating, Parliament House, Canberra, ACT 2600, and ask him to refuse an export licence for woodchips from the proposed Southern Forests operation in Tasmania; ask him to develop a comprehensive Native Forest Protection Strategy and a Wood Production Strategy based on plantations. Write to the Premier of Victoria, Jeff Kennett, Parliament House, Melbourne, Vic 3002, to ask that export woodchipping and logging of native forests be stopped. To become involved in the Wilderness Society's Victorian forests campaign, contact co-ordinator Fenella Barry on (03) 670 5229. For information about the proposed Ellery Creek blockade, contact Concerned Residents of East Gippsland on (051) 54 0145-or Friends of the Earth Melbourne on (03) 419 8700.

To support the campaign against the Welcome Reef Dam, write to the Coalition Against Welcome Reef Dam, c/-NCC, 39 George St, Sydney, NSW 2000.

B For further information about the conference 'Aquifers at Risk: Towards a national ground-water quality perspective', contact Shirley Kral, Centre for Continuing Education, Australian National University, GPO Box 4, Canberra, ACT 2601—telephone (%) 249 4589.

Anyone with information that may help the Victorian Department of Conservation & Natural Resources to identify those responsible for the spiking of vehicle tracks in the Wonnangatta valley is asked to contact Bernie Evans, Regional Manager, North-east Region, on (060) 55 6111.

5 The Australian Bush Heritage Fund can be contacted at 102 Bathurst St, Hobart, Tas 7000—telephone (002) 34 3552.

6 If you have any information on the state of cleanliness of Himalayan climbers' base camps, please send it as soon as possible to Joss Lynam, Chairman, UIAA Expeditions Commission, 7 Sorbonne, Ardilea Estate, Dublin 14, Ireland—fax 353 1 283 1992.

taking has been given by Wild Publications. Readers can obtain some indication of advertiser reaction to this threat to their freedom to choose where they advertise (not to mention the issue of freedom of expression generally) from the advertising present in this issue exactly the same amount as in issue 46.

A dving breed?

We were flattered to be quoted in a recent media release from the Australian Four Wheel Drive Council, which claimed that driver awareness courses run by the council were transforming four-wheel-drive owners into a more environmentally conscious group. The release hailed the demise of the stereotype of the 'portly urban cowboy'—a phrase coined, if we remember correctly in a Wild Editional.

QUEENSLAND

Making the water safe

There is increasing opposition to the use of fixed nets to protect swimmers at beaches in Queensland and northern New South Wales from sharks. In particular, opponents of the nets are concerned that they cause the death of many marine creatures other than sharks. Figures released recently by the Oueensland Government show that dolphins, sea turtles, rays, dugongs, whales and other species, as well as sharks, are trapped by the nets and drown. According to an official of the Queensland Museum and a manager at the Sea World complex, both quoted in Mel-bourne's Age, most of the 200-300 sharks caught every year are species harmless to human beings. Greenpeace claims that more people die in Australia from bee stings than from shark attacks, and that the nets create a false sense of security: that in reality they attract sharks, which come to feed on other animals drowning in the nets. A Oueensland Covernment minister has defended the use of the nets by comparing Queensland, where the fatal shark attack early in October was the first since the nets were introduced in 1962, with California, USA, where there are no nets and where on average 17 people are killed by sharks every year

NEW SOUTH WALES

Unwelcome

The campaign against the plans for the Welcome Reef Dam on the Shoallawen River is progressing strongly. A coalition has been formed to oppose the plans, and representatives of member groups meet regularly. These include opponents of unrestrained urban growth representatives of local fishing behaviour and the proposed of the propose

The groups act autonomously but policy is decided centrally. They have produced promotional material including displays and videos of the river, held public meetings with councils and government bodies, and lobbied politicians. A field trip in the area was planned for November.

All those who value wilderness or natural things, who oppose unrestrained and costly urban growth, or who want to encourage the

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development of a 're-use', rather than a 'throw-away', mentality are urged to support this cause. Membership of the coalition is open to groups and individuals. The time to join—and to act—is now. See Action Box item 2. Andrew Menk

2 1711171210 17112717

New growth

A botanist employed at the herbarium of the Royal Botanical Gardens recently discovered a rare species of heath growing on the banks of the Grose River in the Blue Mountains. The plant had gone unnoticed—or so it is presumed—for nearly 180 years.

Green housing

During, November, the Total Environment Centre convend a conference on 'A Wision for Environmentally Sustainable Housing', Law-yers, planners, engineers, architects and community representatives spoke about the laws and building codes that govern housing, and formed panels to discuss the present situation and the possibilities for change in planning and the possibilities for change in planning ment Centre is at 18 Argyle St, Sydney, NSW 2000—elicelpone (02) 241 253.

Forest campaign conflict

The quarterly magazine Australian Geographic, published by entrepreneur, adventurer and avowed conservationist Dick Smith, has stirred controversy by carrying a full-page advertisement for the National Association of Forest Industries. The advertisement, under the heading 'We only take a tiny slice of the cake. Then give it all back', is part of a big campaign by the association to generate support for logging in native forests. An article in the Wilderness Society's magazine Wilderness News criticized Smith for accepting the advertisement in apparent contradiction of Australian Geographic's policy that advertising should be 'limited to products and services that Dick Smith would use himself'. Smith told the society that he would not buy products made of timber from old-growth forests, but defended the decision to publish the advertisement, which he described as a "public advocacy" statement..."in the public interest". According to the article, Smithagreed to investigate the Wilderness Society's allegations of factual inaccuracies; if he found any, he would 'have them corrected, or drop the advertisement'.

AUSTRALIAN CAPITAL TERRITORY

Water flowing underground

The Centre for Continuing Education at the Australian National University and the Australian Ceological Survey Organization are arranging, a conference to be held in Canberra on 15-17 February 1993 on the subject of ground-water quality—what's happening to it; why, and what to do about it. The conference will be attended by scientists and members of the broader community. See Action Box item 3.

VICTORIA

The new order

As noted in the opening item of this department, the State Liberal-National Party coalition went into the final week of the recent electric campaign without having released several of its policies, including some that are vital to the future of the State's environment. The forest policy mentioned above and the planning policy—which says much about development and nothing about the environment or about third-party rights—were the decision, and consequently received little or no publicity.

Perhaps the least publicized of all was the minerals policy. Some of its proposals appear to place the mining industry outside the normal planning processes and to facilitate 'fast-track' approval of new projects. For example, the Minister of Energy and Minerals will be confirmed as a planning authority and will have the power to co-ordinate and determine mining and all related activities; exploration up to the level of bulk sampling (which can include digging large pits) will be possible without a planning permit; the State section of the planning scheme will be amended to ensure that mining is not prohibited in any shire; the assessment of mineral development proposals will be streamlined and accelerated, and 'disincentives' to development removed; mining work will be approved automatically if no objections are received; and objections will be referred to a single panel, which will make recommendations to the Minister of Energy and Minerals

—not of Planning.

National and State Parks will not be available for mining or exploration, but a full assessment of mineral potential will be required before any new parks are reserved. On a positive note, miners who fail to rehabilitate land satisfactorily will forfeit both their bond and the right to another licence. The tenor of the policy is indicated by a statement that 'in the past decade the minerals section... has been frustrated by ill-founded anti-mining prejudices particularly in planning and conservation'. Conservationists fervently hope that the new government will not rush ahead with this policy but will consult the public; give the present, newly revised Act a chance to work; and maintain public input and proper, independent assessment of an industry which can have wide-ranging, long-term effects.

Ienny Barnett

Alpine park plan

During September, the then Department of Conservation & Environment released the final Alvine National Park Management Plan. Six years in the making, the plan sets out management practice for the 6460 square kilometre park which contains most of the State's alpine and sub-alpine land, and has been the subject of intense lobbying. Bushwalkers, crosscountry skiers and canoeists will share the park with four-wheel-drivers, horse-riders, deer-hunters, anglers and others. As well, there are '39 nationally significant plant species, 21 species of threatened animals, reptiles, birds and fish and their communities and habitats' within the park, said the department's National Parks and Public Land General Manager, lan Harris. 'The major aim of the plan is to provide for public use and enjoyment while ensuring that the values for which the park was established are protected for future generations. Harris said that the proposed plans drew 2242 submissions when they were released for comment in 1989; when were considered by the Alpine Advisory Committee, which made more than 100 recommendations to the department before the final plan was settled. In its conservation



Snow gum at dawn, Mt Cobbler, Alpine National Park, Victoria. The management plan released in September after six years may now be reviewed by the new State Government.

policy, released during September, the then State Opposition—now the Kennett Government—announced that it intended to review the plan, an idea which Doug Humann, Director of the Victorian National Parks Association, labelled 'the height of inefficiency'.

Parting gesture

In the week leading up to the State election, the then Minister for Conservation & Environment, Barry Pullen, released a draft plan to promote bourism in the Mallee. It covers the Yanga-nyawi (Murray-Sunsed). Wyperfeld and Hattah-Kulkyn-National Parks and numerous other reserves in the north-western corner of the State. The Mallee Tourism and Recreation Strategy aims to protect the Continuation of the Parks of the State of the Parks of the Par

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period for comment on the draft plan ended on 30 November

Steel spikes were discovered set into several four-wheel-drive tracks in the Wonnangatta valley during July. The then Department of Conservation & Environment reported that large numbers of the spikes had been found. All were beyond the barriers closing the tracks until 1 November and therefore did not pose an immediate threat to 'legitimate' fourwheel-drive traffic, but were dangerous to horses and walkers. Department staff hoped to find and remove all the spikes before anyone was injured. See Action Box item 4.

Four men in four-wheel-drive vehicles were apprehended on a closed track in the Alpine National Park early in July by department rangers and police from Heyfield. They said charges would be laid of driving off-road, bringing a dog into a National Park, and driving on a closed track.

Open season on climbers?

In Wild Information of Wild no 24 we reported that the then Department of Conservation, Forests & Lands had banned rockclimbing (including climbing on the most popular cliff, in the north-west of the park) in Werribee Gorge State Park because of 'nesting peregrine falcons'. It was also reported that, following the discovery by climbers of a hide for observing peregrine falcons two kilometres to the south-east of that cliff, the department had admitted that the falcons responsible for the bans were a similar distance from the cliff and indeed not even within the park. None the less, the department insisted that the climbing ban stand. In the light of this, the recent approval of the establishment of a rifle-range on a high, exposed ridge on private land adjacent to the park's south-western boundary (near where the falcons, in fact, were shown to nest) is an extraordinary decision. A formal objection to the plan made by the Victorian National Parks Association was rejected by the department. The VNPA objection pointed out that the proposed rifle range would 'disrupt native fauna in the Park'. The objection specifically cited peregrine falcons as being detrimentally affected by the proposed rifle-range.

TASMANIA

Minister's World Heritage antics

Tasmania's long-awaited World Heritage management plan was released in July. It provides for \$6.5 million annually in federal funding, which will be spent on infrastructure, track maintenance and visitor facilities But the Federal and State Governments failed to agree on a number of key issues in the plan. most notably mining in National Parks and compensation for the closure of Bender's limestone quarry at Lune River. See the item below for more details. The State Government wants the right to mine in all National Parks which were created after 1989, during the Field Government's term in office, but Federal Minister for the Arts, Sport, the Environment & Territories, Ros Kelly, said that she would not agree to that proposal under any circumstances. I think if some people had their way here they would mine every tiny bit of the Tasmanian wilderness, but while I am minister they will not be having mining in the World Heritage', she said. State Minister for the Environment and Parks, Wildlife & Heritage, John Cleary, said that the Tasmanian Government would not alter its stance on the issue and would be prepared to wait for a Kelly vacated her position. Compensation for Bender's quarry is another sticking point; the State Government wanted more than \$1 million and was offered less than half that amount. The State Government also wants to build a road adjacent to the Snowy Range in the south of the State, which Kelly opposes. The parties did manage to agree on a number of proposals. Both gave their approval to a continuation of horse-riding and four-wheeldriving on existing tracks. Hunting will continue near Liawenee and there are plans for new accommodation facilities in and around National Parks (see below). On the other hand, highland graziers are sure to be angered by the banning of cattle grazing on the Central Plateau

Paul Macpherson

Final exit?

The Exit Cave saga seemed to have reached a conclusion on 20 August when Federal Minister for the Arts, Sport, the Environment & Territories, Ros Kelly, announced that the extraction of limestone from Bender's Lune River quarry would cease. This followed months of unsuccessful negotiations between the State and Federal Governments, John Cleary, Tasmanian Minister for the Environment and Parks, Wildlife & Heritage, promptly claimed-as he had done throughout the dispute—that the compensation package offered by the Federal Government was inadequate. The operator of the quarry, Ray Bender, began a media campaign which argued in favour of States' rights and claimed that the Federal Government's actions would cause a crisis as profound as the landmark confrontation between conservationists and the Tasmanian Government over the Gordonbelow-Franklin dam. A representative of the Huon Residents' Action Group urged the local populace to help with the quarrying; the ban, claimed, applied only to Bender. It was claimed that the limestone was needed to make fertilizer for the ailing Huon Valley apple industry; in reality, agricultural lime does not have to be 95 per cent pure, nor need it be quarried from the most cavernous limestones such as those in Fyit Cave

In response to this call for action, members of the Wilderness Society occupied the Exit Cave area to prevent further blasting. They also filled the many drill holes which had been made in preparation for a planned 'rehabilitation blast' [One of the best we've heard! Editor]. Bender threatened to send the society a bill for \$14 000, the alleged cost of redrilling the holes. And the Huon Residents' Action Group blockaded the road to Ida Bay to prevent logistical support from reaching the protesters at the quarry. Police removed the blockade because it was on a main public road, the one to Catamaran. Scenes of confrontation between the two protesting groups were shown on evening television.

Throughout the negotiations, Bender had continued crushing loose rock in the quarry while avoiding further blasting. Conservationists were caught by surprise, and then outraged, by Kelly's announcement that Bender would be allowed to continue quarrying by mechanical means until the end of lanuary, when rehabilitation would begin. The minister claimed that her new stance should satisfy all parties; that the five emplovees of the company would not lose their jobs-or not yet; that Bender could continue his operation—although he has no contracts to fulfil; and that there would be no further damage to the cave. Conservationists dispute this last claim, and note that whether it is true or not, quarrying is to continue within the World Heritage Area in contradiction of the minister's claim, reported above.

Wilderness Society members subsequently protested outside the Risdon plant of Pasminco EZ to implore the company not to renew its contracts for limestone from

At present there is no rehabilitation plan for the Lune River site, and quarrying can continue without Federal Government supervision. The question of what use will be made of the rest of the federal compensation money payable under the terms of the Helsham Inquiry has not received any media coverage during the dispute. There are officers of the Department of Parks, Wildlife & Heritage whose projects cannot proceed for lack of funding. Jobs are waiting to be created in World Heritage Areas; the money is available, but the minister seems more concerned that Bender should be compensated and able to begin quarrying anew at Maydena.

Stephen Bunton

'Foster's Cave' ruled out

The Tasmanian Government has hinted that it might support moves to transfer operation of the State's three major tourist caves to private interests. At present, the King Solomon and Marakoopa Caves at Mole Creek and Hastings Cave, south of Hobart, are run by the Department of Parks, Wildlife & Heritage and staffed by department rangers. Minister for Tourism Peter Hodgman said that 'privatization' of the caves was one option being considered in the quest to develop Crown land for tourism. The government has already placed advertisements calling on potential developers to express interest. Hodgman ruled out the suggestion that investors might be able to buy titles to the caves and rename them.

PM

Snowy Range Ritz?

Plans for a wilderness lodge near Cynthia Bay on the southern boundary of the Cradle Mountain-Lake St Clair National Park have angered conservationists. The Green Independents described the proposal as the start of 'commercial onslaught' on the State's National Parks and World Heritage Areas. It is the third major wilderness development proposal this year: a lodge is planned for the nowy Range south of Hobart and a second lodge at Cradle Mountain is also on the agenda. The one proposed for Cynthia Bay



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would provide a range of facilities from luxury accommodation to cabins for backpackers. Federal Minister for the Arts. Sport. the Environment & Territories, Ros Kelly, has expressed support for the idea, and a Tasmanian developer has said that his company, which runs the nearby Derwent Bridge Hotel, would tender for the project if the State Government were to give it the go-ahead. The State Opposition has slammed the proposal: Judy Jackson, spokeswoman on parks and the environment, said that it violated the Cynthia Bay site plan and described it as vandalism to put a lodge on that lake'. A representative of the Minister for the Environment John Cleary replied that the Cynthia Bay site plan did not have any legal standing because the World Heritage plan, of which it is part, had not yet received the Governor's concent DM

Buying back the bush

The Australian Bush Heritage Fund is a non-porfit, non-political company formed so that Australians can buy back the bush. Founded by prominent Tasmanian environ-mentalist Bob Brown, the fund has already bought two valuable blocks (24) hectares) of forested land in Liffey, northern Tasmania, on the edge of the Woolf Heritage wilderness, out how much has been achieved in this way in the UK by the National Trust.

When he heard that loggers were bidding at auction for these privately owned forest blocks, 86b Brown felt that he had no choice. With the money from his recently awarded Goldman environmental prize, and some borrowed from friends and from the bank, he bought the land for \$25000. The forest, the rise—who plope, with the help of nature-loving people, to make these blocks permanently safe."

Logging has already taken place right to the dege of one of the Liffey blocks. Meanwhile, next door, on the land your donations would help to pay off, naturally rare and now threatened Tasmanian wedge-tailed eagles, vellow-tailed black occlations, boobook owls, tawny frogmouths and pink robins fly and nest among myttle, assafars and blackwood forest, in tree ferms and banksias which also shelter pygmy gliders, bettongs, bandicoots, Bennett's wallabies, paddymelons and Tasmanian devils.

In the air, the earth, and the clear waters of Pages Creek and the Liffey River, whole societies of species sustain each other—for as long as the Australian Bush Heritage Fund can make the payments.

The fund would like to expand. In every State there are pockets of land crowded with threatened wildlife that are 'up for grabs': targeted for industry, tourism, agriculture and housing, it is land without protection.

Governments and conservationists have a huge job to do. We can all contribute by buying some of our vanishing bush and keeping it permanently safe for everyone's benefit. See Action Box item 5. All donations are tax-deductible, and contributors have special visiting rights.

Victoria Templeton

OVERSEAS

After Rio

The United Nations Conference on the Environment and Development, better known as the Rio summit, concluded in Rio de Janeiro, Brazil, in June with much publicity, some significant achievements and widespread disappointment at their limited extent. Two conventions, on climate chance and bioAt its 1993 meeting the commission will discuss a French proposal to establish a permanent sanctuary for whales in waters south of latitude 40 S, an idea to which the major whaling countries are very strongly opposed.

Good, clean fun

The September Bulletin of the International Union of Alpine Associations (UIAA) gives



Benson Peak after a storm, Cradle Mountain-Lake St Clair National Park, in the Tasmanian Wilderness World Heritage Area—subject of another recently released management plan.

diversity, were signed by more than 150 countries during the summit and have now gone back to those countries for ratification before coming into effect-a process which will certainly take many months and may take years. Among other things, the climate change convention commits developed countries to reduce their emission of greenhouse gases to 1990 levels by the end of the century. The biodiversity convention aims to encourage signatories to preserve species, and genetic diversity within species, and includes measures for sharing the benefits of research into biological resources. One of the great disappointments of the summit was the failure of the USA to sign the biodiversity convention.

Whaling moratorium wobbles

The world-wide moratorium on commercial whaling survived—in theory—a recent meet-whaling survived—in theory—a recent meet-held in Glasgow, Scotland, but Iceland held in Glasgow, Scotland, but Iceland withdrew from the commission and Norway ananounced its intention to resume hunting North Atlantic minke whales whether or not be that this was acknowledged or approved by the commission. Australia's commissioner was one of 16 who signed a statement which separate the proposed disappointment at the Norwegian of the Norwegian of the Norwegian was the statement which seed that Norway reconsider.

details of a programme recently launched by the association's commissions on mountain protection and expeditions, entitled 'Avoiding trash and waste disposal'. It lists measures mountaineers, trekkers and wilderness walkers can take to minimize their impact on the mountain environment. The two main principles are: reduce the amount of rubbish produced as much as possible; and dispose of unavoidable waste by environmentally acceptable means. Travel light-To you really need the Walkman...the very large camera outfit and so many films...the overfilled wash-kit and so many medications?': avoid packaging waste; and dispose of problem waste in an environmentally suitable way back at home: 'Batteries, aluminium foil, plastic, medications etc are products of our civilization. They do not belong in the mountain landscape, not even hidden or buried.' There is a similar set of tips for organizers of treks and expeditions. Through conscientious product selection and organization, up to 70 per cent of [waste] can be avoided from the start.' (A forthcoming book by Sorrel Wilby gives detailed advice on these issues.)

The association asks climbers who visited the Himalayas during 1991 or 1992 and can report on the cleanliness—or otherwise—of base camps below popular peaks to assist it in planning clean-ups by future expeditions. See Action Box item 6.

Readers' contributions to this department, including colour slides, are welcome. Typed items of less than 200 words are more likely to be printed. Send to the Editor, Wild, PO Box 415, Prahran, Victoria 3181.

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HERE ON EARTH AM I?

Hans Fah explains the revolutionary new navigational device—the global positioning system

Until recently, the navigation aids available on the same since the inception of the nucksack sports. But that has changed. The (global positioning system', known simply as GFS, has already been with us for a few years, but the receivers required for access to this satellite-based navigation system have been either too costly or too bulky to be seriously considered for outdoor recreational use—until now.



One of the palm-sized GPS receivers now available. Above right, pin-point navigation—Andrew Korompay taking the weight off his feet above Lake Ariel, Western Arthur Range, Tasmanian Wilderness World Heritage Area. Peter Nancarrow.

GPS receivers have undergone the same evolutionary process through which we see most consumer electronic items go. Remember how bulky the old calculators were compared with the credit-card-sized units of today? Now there is a range of GPS receivers which not only fit in a pocket, but have a price-tag within the grasp of the average person.

Now that we can obtain access to GPS at a realistic cost, it's worthwhile to assess the system and its associated hardware for potential use in wilderness adventure. First, there are a few basic technical details which can help us to understand how it all works—and, more importantly, what it can do for Wild readers.



GFS is a mind-bogglingly complex system something out of science fiction—but it is also very reliable and functional and the equipment used in the field is very simple to operate. The GFS system consists of a constellation of satellites which continuously transmit time and location data. By receiving signals from four or more satellites, a handheld GFS receiver is able to calculate its position and altitude to an accuracy of within about 100 metres in a format which can be easily translated to a standard topographic

GPS satellites are in polar orbits, so GPS coverage is available anywhere on earth.

The GJF satellite network is owned and controlled by the US Department of Defence, which spent US\$10 billion putting the system into space (bless it). When complete, the constellation will consist of 24 satellities providing 24-hour global coverage. A present there are 17 satellities in orbit and consequently the system does not work at certain times of the day. It is expected that full 24-hour coverage will be available late in 1939. Until then, a programme which will accurately plot the satellitie availability times for your area of operation is available for your personal computer.

GPS is capable of being accurate to within centimetres, but the Department of Defence has written a deliberate error into the system to deny its non-military users such phenomenal accuracy. Still, plus or minus 100 metres anywhere in the world is pretty good especially when you remember that access to the system is free! Receiver units come in various configura-

tions for different purposes such as land surveying, professional marine and air navigation. These units cost mega-bucks and, unless you're Rambo, are not appropriate for humping around the bush.

A few US-manufactured GPS receivers, such as the Trimble Transpack and Magellan Nav1000, have been available in Australia for a few years now for \$5000 or more. They are hand-held and weigh about one and a half kliograms, and until now have mainly been used by small-boat operators. These units are relatively compact fabout two and a half times of a Walkman) and are robust enough in construction easily to handle the bumps, knocks and soakings associated with a wilderness trip.

One of these units should give a read-out of: position; altitude; speed; distance to your destination; compass bearing to your destination; and should have a memory capacity of at least

It should be possible to select units of measurement and geographic terms according to your preference and to take account of the type of map you are using.

Trimble Navigation and Sony have both released palm-sized GPS receivers in



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WILD IDEAS

Australia which weigh approximately 500 grams, run on a few AA batteries and will slip into your top pocket. These units retail for around \$1800. They have most of the basic features of the bigger models and so are ideal to take into the field with you.

I'd often used GPS equipment during trials but it wasn't until I took a unit into the mountains that the full implications of its use really sank in.



Geographical embarrassment? Intrepid mountaineers Jon and Brigitte Muir searching for snow on Mitre Lake, western Victoria, Jonathan Chester

Whenever I had the slightest susption that I was wandering off course, or had to locate a hut in the dark, I would switch on my GPS receiver to obtain a quick and accurate position fix from the heavens. It was as though God were telling me Not only did I receive my own position, I also learned the distance and the magnetic compass bearing to my destination. Having this sort of information on tay made it possible to navigate with pin-point accuracy even under the most testing environ-

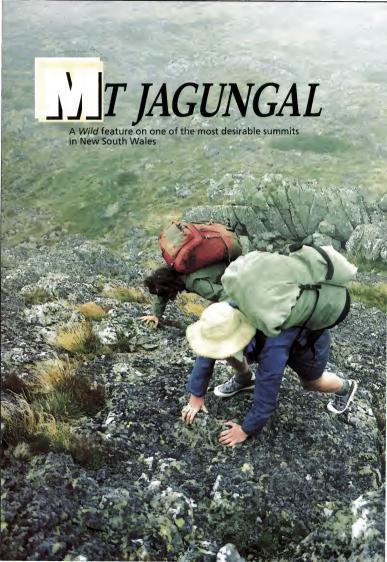
People who need to know their position on the map will not be the only ones to benefit. High-alltitude climbers can also have the most accurate and simple means of obtaining an alltitude fix, independent of barometric pressure, available at their fingertips.

New applications are being devised for CISevery day ranging from the tracking of racing yachs to three-dimensional mapping and navigating expeditions across Antarctica. Whether you are a recreational bushwalker, a cross-country skier or a member of a professional search-and-rescue team, CIS has the potential to enhance your confidence, enjoyment, security and performance in outdoor pursuits.

A word of warning: if you're thinking that GPS will do all the work and let you sit back and relax, think again. GPS is a navigational tool. It is the marriage of the competent use of compass and map with GPS information that

makes for a truly amazing navigation system. Finally, don't even consider sneaking a GPS receiver into an orienteering event. You'll only be cheating yourselfl ■

Hans Fah is a former member of the Australian Special Air Service. He has extensively researched and used GPS field equipment in the military and as part of the preparation for an upcoming 'ski holiday' in Antarctica—the Southern Traverse expedition.





AGUNGAL— MOTHER OF THE WATERS

Peter Sesterka sets the scene

atsushika Hokusai (1760–1849) was a Japanese painter who produced the famous series of paintings known as Thirty-six Views of Mt Fuii. Each of the 36 views depicts the sacred mountain from a different vantage point; a well-known example is Boy and Mt Fuji. (Today, glimpses of Fuji are possible whenever the smog lifts!) This volcanic cone holds a fascination for the Japanese that may be compared with the monolithic attraction for many Australians of Mt Jagungal, in the core of the Kosciusko wilderness area -and even, at the commercial extreme, with the Ayers Rock phenomenon. Fortunately, it is still necessary to walk some distance to get to Jagungal, but it remains one of the objects most often referred to in bushwalkers' stories, articles and Kosciusko hut log-books. (I even know of golf freaks who claim to have hit some of Australia's longest drives from the summit!)

The Aborigines called Mt Jagungal Mother of the Waters' because it is the origin of several large rivers. They have a relationship with this peak which is probably as old as Western civilization itself. Josephine Flood's book The Molfinders details the regular migration of the Molfinders details the regular migration of the Molfinders details the regular migration of the masses of mother than the summer in a state of torpor on the rocky outcrops in the high country. Until relatively recently the Aborigines had probably been making this annual pourrey for at least 5009 years, since the climate warmed after the end of the last loc Ase.

Seen from the Main Range near Mt Kosciusko, Jagungal looms black, like a Moorish castle on a Castilian horizon, its igneous rock a bastion against the erosive rivers that have cut down into the surrounding country. This riverine wearing-away has produced fearsome gorges like those of the Geehi River and

Homage to Jagungal? Bushwalkers scrambling up the lichen-encrusted summit rocks of 'the big J' on a fairly typical day—up amongst the clouds. Roger Lembit Watsons Creek Jagungal is the Mecca of many travellers through the Kosciusko wilderness. People return to the peak time after time, conferring on it a certain mystique, akin perhaps to Hokusais' attitude to his Mt Fuji. Jagungal has become almost a shrine, and walks there have the quality of a pilgrimage for many wilderness-goers.

During summer the journey is relatively easy. A popular starting point is Round Mountain, near the town of Cabramurra on the Alpine Way. A fire train follows foolongs Ridge south to Jagungal, where a good campsite is found at the headwaters of the Tumut River. Walkers can return along Farm Ridge, passing O'Keefes Hut on the way. The Farm Ridge track provides superb views of Jagungal and passes Round Mountain Hut before delivering you back to your car and 'civilization'.

In winter, things change. Many skiers abure been driven back by fierce storms or total white-outs, forced to abandon hopes of long, lazy Telemarks down hopes of long, lazy Telemarks down lagungal's slopes under blue skies. For a lucky few, the magic all comes together with calm, sunny weather, super-quick spring snow and no one else's tracks in sight (I'm still fantasizing about that one, having been forced back three years running when within a stone's throw of the summit.)

In Western minds, the concept of viilderness's asomething valuable, to be treasured, is quite a recent development. How little of it we have left was brought into sharp focus when the Helman Report was published, showing a few tiny islands of wilderness surrounded by a sea of humanity in eastern Australia. Wilderness represents the environment in which our species evolved and developed its biological adaptations. It's worth repeating the words of the great American Indian chief Seattle to the US President of the day in 1854:

This we know: the earth does not belong to man; man belongs to the earth. This we know. All things are connected...Whatever befalls the earth befalls the sons of the earth. Man did not weave the web of life: he is merely a strand in it. Whatever he does to the web. he does to himself.

Aboriginal tribes—the Walgalu, Ngunawal and Ngarigo, to name a few—journeyed to the high country on annual pilgrimages long before the modern-day concept of wilderness had been invented, long before cities and most written history existed. We are absolute newcomers to Jagungal. Aborigines went there for countless summers, feasting on the hordes of Bogong moths (Agrotis infusa) which cluster by the kilo in the

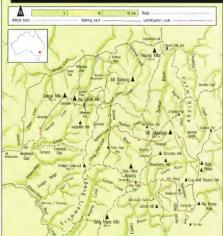


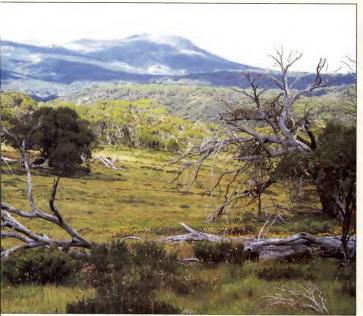
its head in the clouds again, Mt Jagungai Iooms in the distance from Farm Ridge, a popular northern approach. Peter Sesterka

caves and fissures of the rocky summit outcrops. These moths migrate to lagungal and elsewhere in the Alps during spring and early summer, flying as much as 1500 metres above the ground, to establish themselves in regular "moth camps", often on westerly aspects of the peaks. During summer, Aborigines would stay for two to three months, eating several tonnes of moths overall. Evidence of their presence includes ground-edge axes found near Mt Jagungal.

The best way to experience Jagungal today is from the summit, which is composed of dark volcanic rocks rich in iron and magnesium. Some say that the summit area contains pillow lavas, extruded from volcanic vents under primeval oceans. As you climb towards the top, the denser snow gums and understorey shrubs give way to low.

Northern Snowy Mountains





wind-pruned species and finally to snow grass and alpine herbs near the lichen-encrusted summit rocks. On the south-west ramp there is a magnificent, solitary snow gum, like a giant bonsai with blizzard-tortured limbs carved and polished by decades of howling winter gales. I keep a photo of this tree on my wall as a reminder of the tenacity of this marvellous eaclaylyt species. Despite snow tent, Gore-Tex clothing and down-filled cocoon, there is no way that I would last even a few hours on that spot in a real blizzard.

Summer is another story, though. I never get tired of 'sunset shots', and the best ones of all are on Jagungal. You can see a lot of Australia from there, and dream about the coming winter's great ski runs from your vantage point on those tumbled lava pillows. My favouritie view is back south towards the summit of Kosciusko and the crazy country of Watsons Crags. Come people actually ski there! The Crags are the sort of place city neurotics are as suicide

spot were they as accessible as the Gap at Watsons Bay in Sydney.)

Another of my favourite recollections of Jagungal is of the small seas of vellow paper daisies found all around the area. In late summer the air is full of their scent-a sharply sweet smell that is unique to the mountains. Speaking of mountains, Jagungal is one the few prominences on this eroded continent that deserves to be called a mountainalthough only a molehill by world standards. Mountains have long inspired and drawn people to them. Their mystique is expressed in diverse cultural forms ranging from Hokusai's Thirty-six Views to John Denver's popular song 'Rocky Mountain High'. In between is a whole variety of eloquent expressions of this mystique, as varied as Reinhold Messner's and Tim Macartney-Snape's solo ascents of Mt Everest, the Edmund Hillary legend, Ansel Adams's Yosemite, and countless other mountain climbs, stories, paintings, poems, songs and photographs.

Some may be familiar with the concept of 'topophilia', which literally means 'love of place'. When it comes to Jagungal, I must confess that I'm a confirmed topophile, Jagungal is a focus, a distillation of all the qualities of the Kosciusko wilderness. If you had been nowhere but Jagungal, you would know the essence of the Australian high country, and would probably keep returning as long as you were able and whenever you had a chance.

Miyashiro ya niwabi ni toki ukinedori A shrine: here, keeping far from garden lights, float wild birds, sleeping.

Kangetsu ya sekito no kage matsu no kage Cold is the moonshine: shadow of a stone pagoda shadow of a pine.

Masaoka Shiki (1867-1902) ■

Peter Sesterka has been bushwalking and skiling in Kosciusko National Park for more than ten years. He has worked as a seasonal ranger in Royal National Park and as a science and environmental studies teacher in Canberra. At present he works for the Commonweath Government.

AST TO JAGUNGAL

Off the beaten track, with Roger Lembit

aster in the Jagungal wilderness is like Flemington race-track on Melbourne Cup Day—people everywhere. This became obvious as we drove along the Cabramura-Khancoban road. The car-park at the Round Mountain turn-off was packed with cars. The only things missing were the champagne bottles, overflowing picnic hampers and cucumber sandviches.

which wound steeply up the first hill, a climb of about 200 metres. Brad, Nipper, Gus and I made steady progress. Sue and Airdrie did likewise. Ted and Chris took their time to adjust to the heat and the weight of their burdens.

After several rests and more than a few snake sightings we reached a track junction. The Everards Flat Track continued east towards the Dargals Range; the



With winter the prospect changes. Looking southwest to Mt Jagungal from Tabletop Mountain. Right, the spot all the fus is about—Jagungal's craggy summit block. Sesterka. Far right, a cosy campsite amongst snow gums and granite boulders near Big Brassy Peak. Lembit

Not for us these hordes of well-dressed and overburdened humanity seeking a wilderness experience amongst a sea of rucksacks, sleeping-mats, boots, gaiters and cameras. No, we were being different. Having travelled north, south and west to reach Jagungal's summit on earlier occasions, we were trying a new approach. East to Jagungal from Bradneys Gap.

We drove on past a myriad of walkers and cars at Ogilvies Creek, Tooma Dam and the Snakey Plain Track, and stopped at the Bradneys Gap picnic area. There was not a soul to be seen.

Why? We looked east and were confronted with the western flank of the Dargals Range. It was a mere 1200 metre climb to the summit of Dargal Mountain, which in turn is 300 metres lower than Jagungal. The wimps back at Round Mountain were starting 1000 metres higher up and some kilometres closer to Jagungal.

It was a warm April day. We set off on our quest, the silence only broken by the occasional car heading to Khancoban. At first we followed the Everards Flat Track Waterfall Track headed north towards unknown territory. North it was.

The Waterfall Track at first sidles along the west side of a spur with good views of the farm country and hills around Khancoban. It then leads east over a saddle and sidles above Waterfall Creek through impressive stands of alpine ash. Eventually the track peters out.

At this point we decided it was time to leave the creek and resume the climb. It was mid-afternoon and most of us were suffering from our heavy packs. Not long after leaving the creek we came to a flat, grassy bench. After minimal discussion we decided that it would be irresponsible to proceed.

Chris and Ted were lagging behind. When they finally reached the bench we pointed out to them its excellence as a campsite, then said what a pity it was that we had to continue the climb. Their faces darkened. We laughed and explained our decision. They agreed that the best course was to save some of the hill-climbing until day two. It would be no fun to do it all in one day.

Some high cloud had come over during the day, but the late afternoon sun was now filtering through. The tall alpine ash boles glowed in the shafts of light. We

had seen no one since we began walking. The climb at the start of the second day was steep but the scrub was reasonably



light. After gaining about 300 vertical metres we reached a plateau of snow gums interspersed with frost hollows. Dargal Mountain, our immediate objective, lay to the north.

As we headed towards the mountain after lunch the scrub began to close in and the going became slower. It was not until mid-affermon that we reached the top and performed the necessary summit irulas. Ted recorded the proceedings on his video camera—incidentally the first video camera to traverse Bobs Knobs to Vanishing Falls, in Tasmania.

Of course we had to camp early in the saddle between Dargal Mountain and Big Dargal Mountain: it would have been irresponsible to go on!

The weather was beautiful when we arose and we knew it would be a warm day. After bagging the Big Dargal we headed south along the Dargals Range. Out came the camera and the amateur actors at once began to skip through the snow-gum woodland.

We soon dropped off the ridge, but undercorrected [Surely not, Roger! Editor] and found ourselves in thick scrub to the south of Wheelers Hut. The long, hot scrub-bash tired the party and we were very glad to reach Broadway Plain and Dargals Creek. Lunch!

Having left the scrub, we were now entering dangerous country—bushwalk-ers' country. People. Argh!! We bashed our way east towards Pretty Plain following clear leads, tracks and roads. By the time we reached the Tooma River we had seen over 100 people including a huge



party from the Australian National University.

Pretty Plain was dotted with tents that night. Ours were perched high above the creek on a small knoll as the clear skies indicated that cold-air drainage might be a problem that night. We arose to a crunchy frost and a temperature of minus five degrees.

Chris, Brad and Ted only had four days off so they were heading out along the Toolong Range to Round Mountain where they had left their car. After a leisurely breakfast we farewelled them and headed south along the plain.

Puglistic Creek is named to attract the masochistic scrub-basher. We left Pretty Plain and headed up the creek. There was a short section of relatively clear going; then the scrub closed in, Our legs had been rubbed raw from our encounters with scrub in the Dargals so we decided to give the creek a miss and head up the ridge to the south, which appeared more open.

The going improved for a while but we soon found that the scrub god, Horrie (after Horace Ontal, that well-known inhabitant of Tasmania), had Iulled us into a false sense of security—some patches of dense undergrowth were dotted among the cleare sections. One of the most common shrubs was gorse bitter-pea, a shin-high plant with particularly spiny leaves. We spent lunch-time removing splinters.

By mid-afternoon we were through the worst of the scrub and back in open snow-gum country—mostly. We headed up a clear gully, through a saddle, and into the wide, treeless upper Tooma Plain. From here we had excellent views of Jagungal—now fairly close and dominating the eastern horizon.

On the east side of the plain we spotted a copse of trees which appeared to have good campsite potential. We crossed the bogg flast to check it out. Fortunately, our investigation revealed a pleasant campsite amongst snow gums with a water supply 50 metres away. This "Ill dof," exclaimed Cus, much to the relief of the rest of us, tired from our earlier exertions.

The might was not to cold—only a light frost. 4400 metre climb lay between us and Jagungal. After a leisurely breakfast, which included the mandatory two brews of tea, we made our way across to the chosen ridge. After yesterday's efforts we hoped for clearer going, and were pleased to find only light scrub with clear leads. We made good time up Jagungal's south-west flank in squally weather. The passing of the Easter weekend meant that the slopes were now free of people. What timine!

A frontal system was approaching. The snow-gum woodland gave way to alpine herbfields as we made our way steadily towards the summit block. A bitter wind tore at our backs—par for the course on Jagungal. Clouds descended and small halistones began to fall. After the briefest of rests in the lee of the summit, we decided that it was time we weren't there. We proceeded south-east towards the Geehi River, hoping to escape the bad

weather generated by the mountain. The clouds lifted slightly not long after we left the summit and soon we were meandering down the slopes in bright autumn sunlight.

A pleasant day was completed by walking south to the Brassy Mountains, where we made camp in yet another copse of snow gums between granite boulders.

The following day we started our min to Bradneys Gap by crossing Valentine Creek and climbing on to the Kerrles Ridge. The Kerries provide pleasant autumn walking with grassy leads, grantie boulders and a diversity of wild flowers. After a short trip north along the Kerries, we descended to recross Valentine Creek downstream from Mawsons Hut, then made our way across country to the Valentine fire track and west to the Grey Mare Range. We camped near some old mine-works uphill from Grey Mare Hut.



High clouds foretold a likely deterioration in the weather. Sure enough, the next day dawned wet and windy. Ahead of us was a long walk along the Strumbo and Dargals Ranges before the descent to Everards Flat. Intermittent rainfall and strong winds meant that stops were brief and views were generally limited. As we passed round the head of Pretty Plain, the clear leads down to the plain looked inviting. There was certainly potential for a trip in this area—perhaps on skis in a good year.

It was particularly windy along the Dargals Range and we were relieved to begin the long, steep descent to Everards Flat. Once we reached the flat, we searched in vain for a campsite amongst the tall alpin eash forest. Darkness along the first tack, having failed to mach the normal campsite where the track crosses Khancoban Creek.

We arose early and walked the five kilometres out to Bradneys Gap, completing an interesting and worthwhile, albeit energetic, trip far from the Easter hordes—mostly.

Roger Lembithas been a Special Adviser to Wild since issue 13. He has had 20 years' experience as a bushwalker, and in winter has been known to swap his sandshoes for a pair of cross-country skis. He is active in several conservation groups. He lives in the Blue Mountains, New South Wales, where he works as an environmental consultant.



Skiing from Mt Cobbler to Tamboritha Saddle in the wintry heart of the Victorian Alps, by Glenn van der Knijff





The weather during the winter of 1990 had been consistently atrocious, but we still hoped that fine weather would prevail for our nine-day ski tour across some of Australia's wildest snow country. Back in early June we'd hidden five days' worth of food in tin drums at Macalister Springs in the heart of Victoria's Wonnaneatta-Moroka country.

Even then, we were almost stranded by early-season snow falls on the Howitt Plains. But by late August, we thought, the weather must surely improve. It had to! After all, we intended to traverse the rugged and beautiful country between Mt Cobbler and Tamboritha Saddle, and foul conditions would make this a doubtful proposition.

Initially, our group consisted of six: Michael, Tim, Janis, Tracey, Joe and myself. A job promotion prevented Michael from taking part. The rest of us gathered at Cobbler Lake around noon on a bleak August Saturday. During the drive from Melbourne to Whitfield it had rained constantly, and we encountered light snow falling on the hills above Whitfield, Conditions could only improve, we told ourselves as we trudged off towards Mt Cobbler under the weight of heavier-than-expected packs-and improve they did. Not five minutes after we left the shelter of the small hut by the lake, the sun tried to peek through the clouds. The new snow soon melted and left the scrubby forest dripping wet. We, too, were soon soaked from water and sweat

Crossing a stream early in the trip was our first cautious experience. A single moss-covered log spanned a distance of about ten metres and had to be negotiated as a kind of initiation ceremony. This took us almost half an hour. After this point, however, climbing became easier. The snow soon became deep enough to ski on and with lighter packs we made steady progress up the mountainside. That was until Tim, who had hurt his knee the weekend before while descending Mt Fainter and had been complaining of painful twinges on the climb, decided that enough was enough. Whilst he wanted to continue, the chance that his injury might jeopardize the trip later, when help would be days away, called for a tough group decision: Joe would take Tim's pack and return with him to the lake, then meet us later. We hoped that the occupants of a small tent pitched near the lake would be able to take Tim back to civilization. (We learned on our return to Melbourne a week later that Tim had an uneventful return and spent the rest of the week relaxing at home)

While Tim and Joe retreated, Janish. Tracey and I continued ever higher. Pleasant surroundings and dry snow made for a picturesque setting, and we skied with renewed vigour. By five o'clock we reached a level area at the tree line and decided that this would be our



The view south from the summit of Mt Cobbler to the Crosscut Saw; Mt Howitt is in cloud beyond. **Previous pages**, looking back in the opposite direction from near Mt Howitt, with Mt Cobbler's distinctive hump on the horizon. **Right**, nearing the end—Snowy Bluff and Neilsons Crag from the Browy Plains. All photos Glenn van der Kniff

first night's camp. While the others erected the tents, I returned to collect Joe's pack. As I threw it over my now weary shoulders, Joe returned from the lake and in the fading light we skied to our campsite. It had been a long day.

Sunday morning was perfect. With hardly a cloud in the sky. Joe and I were up early to photograph the scene. While the others slept on, Joe and I climbed the summit of Mt Cobbler and skied on its open snow slope. From the top we could see the major peaks of the Victorian Alps, all deeply blanketed with snow. Prominent to the south was the country we were about to tackle: Mt Speculation, the Crosscut Saw, Mt Howitt and Mt Magdala. Hidden beyond these peaks were the kilometres of snow plains we'd be traversing later in the week. Soon the others joined us on top and we dotted the hillside with head-plants. Late morning came all too soon, and it was time to move on.

Skiing through the open snow-gum forest towards Mt Koonika was a delight. Deep snow covered all but the largest obstacles, and small peaks along the way provided fine views. Late in the day,

standing in the deep saddle at the base of Mt Koonika, Ioe and I cooeed to our partners, somewhere in our tracks behind us. No answer. We knew that it would be a while before they caught up with us, but we decided to ascend Mt Koonika anyway, assuming (wrongly) that they'd follow our tracks to the summit, and to our campsite. As the sun was setting, Joe managed to make contact with Janis by calling from the topmost branches of a dead snow gum. A vague form of communication was entered into, and we understood that they would meet us on the top at eight o'clock the following morning, preferring to camp in the saddle for the night.

With this in mind, Joe and I had packed up by eight, and waited for the others to join us. By half past I was getting anxious, so I returned to the saddle to find them still cocooned in their sleeping-bags. Their understanding of our plans had obviously been different from Joe's and mine. A few kind words, and my offer to carry Tracey's pack to the top of Mt Koonika, soon had them moving the different plant past and the more of the Koonika, soon had them moving the past past and the mine of the form of the form of the mine of th

Back on top, the four of us skied along the high ridge that leads from Mt Koonika to Mt Speculation. The skiing was easy; the bluffs of the Razor and the Viking dominated the scene to the east. The climb to Mt Speculation was a hot one in the calm, sunny conditions. Once on top, however, it was like entering a new world. The terrain drops away



the weather. As Joe and I were moving faster than the others, we arranged to meet them at Valleio Gantner Hut at Macalister Springs later in the day. That way we would be able to fulfil our desire to visit Mt Magdala. So we left Ianis and Tracev behind as we traversed the Crosscut Saw. In icy or foggy conditions this ridge could be dangerous for the unwary, but three days of sunshine had softened the snow and the Crosscut Saw had lost much of its harshness. We managed to pass the eight or so peaks which comprise the 'Saw' without incident. On approaching the summit plateau of Mt Howitt we were able to look back across the terrain we had found the spot. Joe is nearly two metres tall, but by the time he had shovelled his way down to ground level his head was nowhere to be seen. Passing out the drums of food was no easy task in two and a half metres of snow, but worth it for what they contained. Back in the hut we feasted on all manner of luxuries. As the weather closed in outside, we dried our clothes and washed our smelly bodies.

Wednesday came and went all too quickly, much of it spent in the hut eating and sleeping as the weather raged outside. There was no chance to enjoy Howitt's slopes; rain, fog and wind put paid to that.



steeply towards the Terrible Hollow, with the huge escarpment that extends west from Mt Howitt to the Bluff forming an imposing wall to the south. This is a truly wonderful place, but the fascinating Crosscut Saw beckoned, so we had an all-too-brief lunch.

In some places the descent from Mt Speculation was akin to mountaineering. A slip or a dropped ski on the hard surface would have spelt curtains. Before reaching the northern limit of the Crosscut Saw, one must first deal with Mt Buggery. The origin of Mt Buggery's name becomes apparent only on climbing it, and I thought it might be easier to traverse round the east side to the saddle south of the peak. With hindsight, this may not have been the best option. To traverse steep slopes of soft snow proved more awkward and tiring than to climb, and the direct route over the summit may have been easier.

We were approaching what is arguably Victoria's premier high-level ridge traverse—the Crosscut Saw. We skied to its northern end and made camp on the ridge top where it was barely two metres wide—just enough room to pitch two tents in line. The campsite provided a lovely scene, but only a brave person would contemplate a trip to the loo there at night!

On Tuesday, our fourth day, high cloud and an increasing wind were to remind us constantly of an impending change in traversed—all the way back to Mt Cobbler. We also noticed two tiny objects on the Crosscut Saw which, on closer observation, proved to be Janis and Tracey having some problems on the

most difficult section. We turned our attention to Mt Magdala. After leaving our packs beside a tree, we skied towards our destination with gusto. From Mt Howitt we passed a few peaks, the largest of which is known as Big Hill, before ascending Mt Magdala. The final slope is steep, but the view makes the climb worth while. Just below the summit is a huge cleft in the ridge, aptly known as Hells Window. From the summit we could make out Mt Revnard, 30 kilometres to the south, where we would be in four days' time. While Ioe practised his turns on the large, east-facing bowl, I took time to record the scene on film. A quick snack and we retraced our tracks to Mt Howitt and our packs. The detour to Mt Magdala had taxed our resources and we were both exhausted as we skied up the hill to the hut. Janis and Tracey had arrived 30 minutes earlier and together we tackled the task of retrieving our food-dump. A quick check of the compass bearing, and some tape on a tree, confirmed that we'd

Amazingly, on Thursday, our sixth day, the weather began to improve. Tracey and I spent the morning collecting firewood to replace what we had used, while Joe and Janis skied on the rain-drenched slopes of Mt Howitt.

Early in the afternoon, just as we were leaving, the sun shone again. It seemed as though someone up above was looking after us. We were leaving the rugged country behind and were now entering the many kilometres of snow plains that extend towards Gippsland. Through the afternoon we skied over the expanses of the Howitt Plains to Howitt Hut. Whilst the hut is steeped in history (the body of a murdered man was once found there), it is becoming run down from over-use during the summer months. We spent a pleasant night there none the less, and the following morning we were away early to make use of the hard snow surface before it softened.

From Howitt Hut, the Howitt Plains Road leads down to the Bastards Neck, then climbs again. About eight kilometres from the hut the road crosses the upper reaches of Bryces Plains. While Janis and Tracey decided to follow the road to Guys Hut, our night's destination, Joe and I chose to ski down to



Conglomerate Creek and followed the beautiful valley downstream to Conglomerate Falls at the head of Bryces Gorge. The snow cover here was patchy and we had to carry our skis. A sudden downpour of rain and hail ensured that our stay at the waterfall was only brief. and we continued along the foot track which follows the edge of the gorge's escarpment to another waterfall, this one known as Piemans Falls. The weather

ski tracks east, down a thickly forested slope, to a creek which flowed through a gap in the range known as the Gorge. Now, entering Holmes Plain, we were 300 metres below Mt Revnard and the snow cover was thin. We passed through a cattle vard and followed the plain down for about two kilometres to Kellys Hut which was to be our final night's campsite. A weekend party had already inhabited the hut, so we camped outside.



Guys Hut nestles in the valley of Piemans Creek.

still looked ominous, so we hastily made our way up Piemans Creek to Guys Hut, and set about getting a fire and a brew going, Like Howitt Hut, Guys has an interesting history but is by far the more picturesque by virtue of its timber construction

The others had arrived before us but had gone off to view the falls. On their return we cooked a huge meal and discussed our plans for the next dayour last full day on the trip.

A little snow fell overnight and provided a perfect skiing surface. From the hut we skied up on to the road, which we followed up the gentle slope to the Snowy Plains. On the plains the snow was lying deeply and nearly every landmark with the exception of the Snowy Plains Airfield was covered. Rather than continue along the road, we decided to take a more interesting route across the plains to Mt Reynard. A wrong turn as we passed Mt Lookout took us into deep, soft snow and thick forest, but this soon led to a large snow plain and a direct route to Mt Reynard.

Mt Reynard is a large, flat-topped mountain which rises about 200 metres above the Snowy Plains. On top we met other groups of skiers who were on weekend trips. They were interested in what we had done and where we had been. These were the first people we'd seen since leaving Cobbler Lake eight days earlier.

Late afternoon was fast turning into evening, so we followed the numerous

We had arranged to be picked up at lunch-time the following day at Tamboritha Saddle, but with the snow cover marginal on Holmes Plain we knew that there would be no snow at the saddle. Using the CB radio we had carried, we attempted to raise Steve and Michael, who were to meet us, but contact was impossible due to interference in the atmosphere.

Up early on Sunday morning, we tried the radio again. This time we had more success, and we arranged to meet at Lost Plain near Mt Arbuckle, which was as far as their vehicle could go up the Howitt Road. It appeared that the weather was again changing for the worse. As we trudged across the plain, light snow began to fall from an overcast sky. After tentatively crossing Shaw Creek, we were able to don skis on the far side and follow McMillans Track up the western slope of Mt Arbuckle. On nearing the top, more ski tracks and track markers indicated that we were crossing the Lost Plain ski trails. One final run down one of these trails led to the car-park.

Smiling faces and cold stubbies greeted us, and we all reflected on what had been a superb tour, with generally excellent weather, through wild and marvellous country. Whether we would ever return to ski this area or not, I did not care. With a small group of friends, I had seen it in all its winter finery, and the memories, I felt sure, would live forever.

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with Barbara Key

Words enticed me to Fraser Island— words spoken by Australian poet-environmentalist Judith Wright during the Fraser Island Environmental Enquiry in 1975:

These are the qualities of wilderness—the These are the qualities of wildemess—the qualities of the ocean-side wildemess, which Fraser Island does particularly represent. They give me a sense of awe, I think, of sensitivity towards the land-scape… know very few children—urban children—who have been able to experience, as people of my age did, the log of flondliness on a coastline, of beauty experienced without human interference.

I needed no other motivation. Late

I needed no other motivation. Late one winter, when the holiday crowds had dispersed, this 'urban child' set off for Fraser Island in search of those wilderness qualities and a much-need-ed respite from civilization. My escape route began at Rainbow Beach on the mainland, where I joined a day tour which took me as far as the island's interior. "I'll pick you up on the coast—midday Friday', promised the driver. The door slammed shut and I watched the cumbersome wehicle as it negotiated the deep drifts of a sand 'road' until it jolted and bucked round the bend out of view. When the sound of the engine had died, I shouldered my pack and set off along the track to Central Station, relishing the silence.

the silence.

The world's largest sand island is indeed large. One hundred and twenty kilometres long and averaging 15 kilometres in width, it covers 184 000 hectares. I chose to explore the central southern region, the high country, situated in what is referred to as 'dune



system four'. Scientists have separated system four'. Scientists have separated the dunes into a number of types, labelled systems, each characterized by distinctive features. In system four, peaks can reach 240 metres above sea level. It is the zone of rain-forest glants, of freshwater creeks cutting through of freshwater creeks cutting through dense vegetation and perched lakes sitting far above the water-table. In the heart of this region lies Central Station. Nestled in a forest of towering

satinay, kauri and hoop pine, its north-

ern aspect is bordered by rich rain forest ernaspect is bordered by rich rain forest lining the banks of Wanggoodba Creek. Originally established as a forestry station in 1920, it is now a popular camping ground. Topular—I cringed at the thought, but my worries were unfounded. On my arrival a lone, single-person tent tucked away in the far corner was the only sign of other intruders. I could live with this inter-pretation of popular.

The key attraction of this region is its proximity to many diverse vegetation zones. Mother nature has broken all the rules here and placed an infinite variety of plant life within easy walking

distance from one central base. It is truly a bushwalker's paradise, to be experienced at leisure.

My first view of Wanggoolba Creek was from the elevated timber boardwalk which skirts its southern bank for 500 metres. I found this irksome, but accepted with reluctance the need for it if this area is to survive the constant flow of visitors. myself included.

Leaving the boardwalk, a two kilometre track follows the south bank of the creek before crossing to the north side and terminating at Pile Valley. I spent a sybaritic afternoon on this walk, soaking up the atmosphere of the rain forest.

Most prominent amongst the forest canopy were piccabeen palms with their lattice-work of foliage. Elk and staghorn ferns clung to accommodating hosts of kauri and satinay; vines draped and coiled in profusion; a thousand shades of green. Buttressed roots, adorned with lichen and fungi, seemed conveniently placed to trip the unwary walker.

But it's the rare Angiopteris evecta, or king fern, that holds pride of place here, rising regally from its sandy bed in midstream. Said to have evolved in the earth's steamy jungles some 250 million years ago, this fern has maintained its genetic inheritance—a true survivor and has been described as a livine fossil

Occasionally the remains of an ancient fallen giant lay straddling the creek. Perched on the bulk of one of these, I watched the fishing technique of a blue and orange kingfisher. A movement by the creek bank, a flurry of wings and a flash of iridescent blue, then he was back at his hide waiting patiently for the next chance of a snack.

A combination of filtered sunlight, earthy dampness and blissful silence tempted me to stay put and idle away the remainder of the day. Instead I pushed on to Pile Valley, home to an impressive stand of giant satinay (Syncarpia hillii). These magnificent giants were logged extensively during the early part of the century, prized for their tall, straight, cylindrical trunks and their most valuable commercial attribute- resistance to marine borer attack. The timber was sent as far afield as London's Tilbury Docks and the Suez Canal. Satinay trees take 1000 years to reach maturity; it is a happy thought that, after prolonged conservation battles, Fraser Island's satinay stands are now preserved. An early dusk was descending as I turned and made my way back to camp.

That evening I shared fireside conversation and jacket potatoes with Max, a retired surveyor, and his wife, Anne. Their aims were similar to my own, and I welcomed their quiet and relaxed company. The mysterious occupant of the other tent had departed during my afternoon wanderings.

Two crafty dingoes kept a close eye on dinner proceedings as they manœuvred all evening, hoping for a hand-out which was not forthcoming. The dingoes of Fraser Island are said to be the purest remaining strand in eastern Australia, a state attributed to their isolation from domestic dogs.

Timagine it was the same two characters that woke me from a dreamless sleep in the early hours of the morning. Had it not been for Anne's earlier warning—By the way, the dingoes will wake you tonight with their howling—I'm not sure what I would have made of their nocturnal performance. Dingoes in the dead of night are at any rate preferable to the screaming police and ambulance sirens so frequently heard in cities.

Early mornings at Central Station are reason alone to visit Fraser Island. Kookaburras cued the daybreak chorus at six o'clock sharp. Within minutes it seemed as though the entire bird population of the island had congregated in the surrounding tree-tops. Rainbow lorikeets, galahs and cockatoos invaded the highest branches while crows patrolled the ground below. By mid-morning their ranks would thin and a temporary silence descend.

Max and Anne departed for the coast. l was off to Lake McKenzie, a six kilometre walk north by way of Basin Lake.

After crossing Wanggoolba Creek the track climbed sharply and reminded me of my poor state of fitness. Here the track is packed firm with an accumulation of leaf litter and forest humus, and passes quickly from rain forest into a tall-eucalypt zone.

Towering brush box, blackbutt and rose gum provide protection for thriving communities of banksia, black she-oaks and a veritable sea of macrozamia and brilliant green foxtail sedge. Wild flowers add bursts of pink, white, yellow and purple. From delicate bush iris to hardy boronia, their presence is a delight.

Small and symmetrical, Basin Lake lies in an amphitheart of dense, encroaching forest. If ever a lake had a personality, this one has—a broodling presence shrouded in isolation, stillness and silence, broken only by the somnoient drone of insects. The air was heavy redolent with secrets and legends, and for a moment I became an intruder on sacred ground.

Skirting the perimeter—crusted white sand dotted with a rash of carnivorous pink sundew and fringed with red reeds—I searched for an exit from this intriguing place. A small post marked with the walkers' symbol—the second such sign I had encountered—pointed me on. I found the tracks to be signposted only where necessary and the vegetation so dense that to stray from the path proved almost impossible.

In contrast to Basin Lake, Lake McKenzie was open and welcoming. Well adapted to the sandy environment, stands of melaleuca enjoyed their waterfront setting, growing with contred roots in shallow water or leaning

drunkenly from a precarious hold on the

Clear and inviting, the water was also tooth-numbingly cold. After much procrastination I took the plunge and my mind was flooded with the distant memory of a swim in the Irish Sea one northern summer; the water temperature here was just as shocking.



Fraser Island's sands support a magnificent forest canopy—these rose gums are catching early morning light. **Right**, 'small and symmetrical, Basin Lake lies in an amphitheatre of dense, encroaching forest.'

A brief dry-off period, some sustemane from a day pack, and I set out to retrace my route. I had expected to find other walkers on this track, and was pleasantly surprised by their absence and enjoyed my state of solitude immensely—but not for long. As I neared Basin Lake, a trickle of walkers began to appear. First came a fellow solo wandere, followed in hot pursuit by a group of young boys. 'Have you come from Lake McKenzie?', they chorused. Then, the universal 'How much further is it?' Their enthusiasm was infectious and I could hardly view their presence as an intrusion.

Late afternoon saw the return of bird life to the campsite. With the sun's last rays glancing from their brilliant plumage, flocks of lorikeets became formations of darting red arrows. The dingoes were once more in attendance. I had half expected to find my food supplies ransacked on my return, but fortunately a zipped tent-flap proved to be an adequate deterner.

I had been blessed with glorious weather—the clarity of winter air warm-ed by an early spring sun. So there was hardly cause for complaint when the following morning dawned overcast and threatening rain.

My camp-breaking procedures appeared to be a great source of interest and entertainment for an inquisitive blue and yellow honey-eater which had taken up residence in a bush by my tent. (Or maybe I had invaded his privacy and he was just happy to see me leaving!) Small, round and fat, he flitted from branch to tent and back again, chirruping all the while.

Settling my pack on to a mildly protesting body. I left the honey-eater to his fussing and walked out of Central Station along the road to Eurong on the coast. It was a pleasant change to stride out on a reasonably firm and level track. With luck the ten kilometre walk would remain a benign stroll.

On higher ground to my right, dense stands of pine rose in succession while the lower side lay cloaked in rain forest dropping some 20 metres below to Wanggoolba Creek. I stopped by the bizarre form of a strangler fig and peered between the ranks of trees down on the roof-top of the rain forest beneath which I had wandered two days before.

A light smattering of rain had begun. Rather than dampen my spirits it served to enhance the earthy aroma of the forest. And the chances of being soaked were minimal, the merging foliage overhead creating a vast protective tunnel of green.

Turning south away from the creek, the road entered a woodland befitting childhood dreams and fairy-tales, home to elves, goblins and Bilbo Baggins. Massive, cylindrical trunks of satinay, kauri and brush box dwarfed their siblings of Pile Valley. Relics of past life lay half buried amid mountains of leaf litter, brilliant green shoots of new life emerging from their bulk. The presence of any birds here was barely detectable, ensconced far above in their lofty habitat. But subterranean rustlings in the dense undergrowth spoke of inhabitants on the move.

The memory of this section of the walk stays foremost in my mind as a tribute to the beauty and timelessness of Fraser Island. And to the adaptability of nature: to find such a forest on an island of sand!

My reverie was broken a short while later when I came upon a scene of devastation. Tall timbers had been snapped in half, leafless limbs lay twisted and broken, and the area was parched and dead in contrast to the surrounding greenery of life. Like a headstone by a grave, a small roadside plaque gave cause:

On Tuesday 22 May 1990 a severe the path of damage is 2 kilometres in length and 100 metres wide. Many satinay, brook and tallow-wood have been reduced to spars or blown over. Logs adjacent to the road edges have been salvaged. Natural regeneration processes will be left to take their course.

Three kilometres from the coast the transition from central flores to coastal scrub was abrupt and startling. I had crossed an invisible line from verticals to horizontals, from a tall green woodland to a sunburnt Australian bush, in a matter of a few metres. Wide-reaching scribbly gums, bloodwood and banksia, wattle, bracken fern, macrozamia and footall sedge.

With the loss of forest canopy and moisture, the road became a nightnare of sand slogging. When some passing motorists, the third set in seven kilometres, offered me a lift, I made a compromise and asked them to deliver my pack to Eurong. Left with a manageable load of day pack, camera and tripod, I could tolerate the uncomfortable conditions and enjoy the delightful surroundings.

Although not being a true wilderness walk, the last ten kilometres had been my most enjoyable, and perfect evidence of the sculpting force of the elements. From the green, rain-soaked interior of rich forests to the drier browns, reds and ochres of the wind- and salt-swept coast-line. Twisted and contorted limbs, creeping sand-blows and half-buried vegetation—all testimony to a dynamic land-scape on the move.

On retrieving my pack from the local store, I was tempted by an ice-cream, and replenished my water supply before searching out a coastal campsite respectably distant from the tiny community of Eurong.

There were few restrictions then regarding campsites on the eastern coast of the island but, with school holidays not long over, many areas had been signposted 'Closed for Revegetation'.

Eventually a small hollow behind a grassy dune in the shelter of some she-oaks provided privacy. I spent the remainder of the day recovering from my strenuous morning. A pair of sea eagles

flaunted aerobatic skills as they scoured the foredunes or flew low over the ocean in search of supper. Supreme airborne hunters, they provided me with leisurely entertainment

As dusk fell, the sound of the ocean accompanied my thoughts. I had found accompanied my thoughts. I had found my solitude. Perhaps more importantly, in had become aware of a gentle side of the wilderness. I was aware of all those small, intrinsic details that creep into one's consciousness when alone in our one's consciousness when alone in our wild places: the texture and patterns of or bark; the multitudinous tones of green, and the intricate form of a wild flower—the most beautiful aspects are often the least obvious.



My last morning. I dragged myself from the tent and stumbled down the sandy track in the dim light before dawn to witness the sun's arrival on a new day. Ninety kilometres of coastline and not a soul in sight. A group of dolphins, silhouetted in the first tentative rays of sunlight, frolicked just beyond the breaking waves, heading north.

Later in the day I would head south and join the flow of traffic back to another world. I would take with me a comforting thought: while Fraser Island has often been the subject of controversy, besieged by tourists and the ubiquitous four-wheel-drive, it has somehow endured, retaining pockets of isolation where the true qualities of a wilderness environment can still be found. It's only a matter of looking.

Barbara Key lives on the Gold Coast, where she works as a graphic artist and screen printer, takes photographs, and writes. During ten years of living abroad, she walked extensively in Ireland, Nepal and her favourite wilderness, the Sinai Desert.



THE TORRES DEL PAINE

A trek in Patagonia, with Nick Green

Datagonia has long been a name evocative of remoteness, extremely wild weather and spectacular mountains. Lying at the sparsely populated southern end of South America, it is a rugged region of lakes, fiords, glaciers, forests, mountains and windswept plains. Called the 'Land of Tempest' by British explorer Eric Shipton, Patagonia is still virtually unexplored in some parts. Though not especially high, the region's jagged, sheer peaks are amongst the world's most difficult to climb. For those who prefer gentler gradients underfoot, trekking can take you very close to the mountains. The circuit around the peaks of Chile's magnificent Torres del Paine National Park has been acclaimed as one of the world's finest walks

The torres themselves are three sheer granite towers which are almost enclosed within a group of mountains, the Paine Massif. The name Paine (pronounced 'piney') is believed to come from a local Indian word which means either blue or pink—depending on which book you read. Apart from the towers, highlights of the park include huge glaciers which descend from the Southern Patagonian Ice Cap, many lakes, and abundant wildlife. The circuit walk within the park can be done in as little as four or five days, but it is better to plan for six or seven to leave time for possible bad weather and at least one side-trip.

On the slow bus journey to the park from the small Chilarn harbour town of Puerto Natales it is worth remaining awake (the discomfort should help?) to catch the first sight of the mountain ranges as they rise dramatically out of the pampas. Rheas, the South American ostriches, are often seen on the plains, and condors can sometimes be spotted soaring near the peaks.

Ian and I began our walk from the park entrance. We were happy to let a large group of colourfully overdressed Italians rush off ahead while we photographed a semi-tame Patagonian fox and a herd of guanaco (the wild ancestor of the Ilama).



lan with the Ice-capped Cerro Paine Grande in the background. **Opposite**, dwarfed by the ice cliffs at the face of the Grey Glacier. *All photos Nick Green*

There were several young and we were able to come quite close to the family groups.

Frequent marks of red paint on trees and rocks made the track easy to follow. Given the good weather, we decided to take our packs up on the side-trip to the towers and camp somewhere near them. Most walkers make this detour as a day walk from the refugio, or hut, near Laguna Amarga. Protected by mountains from the cold westerly winds, it was a hot, sweaty climb up to the forested valley below the towers. We set up camp in the beech forest by the Río Ascensio, then dimbed for a further hour for an evening view of the towers. After a final slope of granite boulders, they suddenly materialize—three huge rock spires above a small lake; their sheer walls somehow looked more forbidding because the summits were lost in swirling clouds. The middle tower is 2670 metres high and its east face, at which we were looking, close to 1200 metres of nearly vertical rock.

An icy wind deterred us from staying too long but we returned for a second look the following morning. We caught tantalizing glimpses of the towers' summits, but saw their full height only when we were back in the main valley. Even from a distance they are very impressive.

Despite the rugged natural splendour of the park, it is not an untouched wilderness. Settlers once grazed sheep in the valleys and some of the huts used by trekkers are old shepherds' dwellings. In places the forests still bear the scars of early fires. Cattle are now run on the eastern side of the mountains and on our descent from the towers we asked at the estancia, or ranch, for directions for a short cut back to the main track. Soon afterwards we stopped by some small lakes where there were many ibis, geese and other water-birds-and the unforgettable sight of a flock of pink flamingos circling low in the sky with the snowdusted towers in the background.

The short cut was a network of cattle tracks. Even once we were back on the main path, the mingling tracks of investock caused us to lose the way several times. Following the valley of the Rio Paine, we walked through attractive meadows carpeted with wild flowers. Every so often, large Patagonian hares would bound away, and in the forest we use the bright colours of red-chested woodpeckers and the Austral parrot.

It was New Year's Eve and we hoped to meet some other trekkers with whom to celebrate. We walked until late but saw no one and ended up sharing the evening with a one-eyed cat which lived by an old farm hut and toasting the night with our supply of cheap Argentinian Tia Maria. We were surprised to encounter so few other walkers on the trek as we were there in the middle of the best walking season.

The next morning we passed Lago Paine and its rudimentary tin refugio. Shortly afterwards we met a German who had got loot in the swam pahead and advised us to look carefully for the marker poles. The swamp was never more than ankle deep so we found it hard to understand how four Israelis we met drying out at Refugio Dickson had managed to get wet up to their thighs. The hut is surrounded by superb scenery and the Dickson Glacier at the far end of the lake appears to hang like a mountain of ice on the horizon.

The long hours in these southern latitudes during summer are a luxury for the walker. Knowing that it wouldn't ged dark until about 10 pm, we took advantage of the sunny evening weather to





The spectacular granite towers of the Torres del Paine. **Right**, Ian crossing the pampas with the Paine Massif in the distance.

make a start for the pass, the highest point on the circuit. We finally camped in the beech forest beside a river, a setting spoilt only by firewood that refused to give much heat and by clouds of gnats.

The following day we climbed gradually through forest towards the pass and crossed the river without difficulty a couple of times before arriving at the small glacier and lake behind a high moraine. There is a good campsite among the trees here, out of the cold wind. As in many alpine regions, the track is very boggy in places. Higher up on the pass we climbed over rock and some snow patches. Trekkers on this walk often debate the best direction in which to do the circuit and cross the pass. I think that the gradual climb in the anticlockwise direction is better than the very steep ascent coming the other way. Going up or down, the steep section can be treacherously slippery in rain, and the pass is very exposed to winds blowing across the glacier. Fortunately we had only cold wind and light snow flurries on the pass, and it hadn't rained for two days so the descent wasn't too bad. Even so, it was essential to hold on to trees—even to cables in a couple of places—to avoid sliding out of control.

From the pass there is an outstanding view of the huge, crevassed expanse of the Grey Glacier below. Several kilometres across, it stretches out of sight up to the Patagonian Ice Cap. The section from the pass to the face of the glacier looks deceptively short on the map, but it is probably the most arduous part of the walk. The track leads up and down over the thickly forested mountain slope above the glacier, and progress is slowed by fallen trees and deep guilles. Spied through the forest, the glacier appears almost other-worldly.

After another night in the forest we reached the face of the glacier, where jagged ice cliffs tower over Lago Grey. To stand beneath them at the water's edge gives a real sense of their immense scale. The pressurized ice is a deep blue colour

and icebergs which break off from the glacier can be seen floating or grounded further down the lake. Many are carved by wind and waves into delicate, transparent sculptures.

We pressed on to Refugio Pehoé. buffeted from behind by a wind that whipped spray from even the smallest pools beside the track. At the refugio we spent our first night in a hut-and our first with company. I was glad that we didn't have to endure a repeat of an earlier stay here, when a plague of mice had run across the bunks and in and out of pots and pans all night. Also on that occasion, a mysterious nocturnal visitor

had banged heavily against the door but

a search outside had found nothing. A

local said later that it might have been a

puma, the stealthy, big cat rarely sighted

From Refugio Pehoé it is a four-hour walk out to the park administration centre. With fine weather and extra days in hand, we decided to camp for a night in the Valle Francés before leaving. Here on one side were the strikingly shaped mountains called the Cuernos, or Horns. del Paine On the other above the small Francés Glacier, was Cerro Paine Grande. the highest mountain in the park at 3248 metres. Its peak is surrounded by a thick layer of ice and every so often we would watch as small avalanches tumbled down from its flanks. By fording the river below the glacier it is possible to go further up the valley towards several imposing mountains which stand close to the towers on this side.

Before walking out we made a detour to the Salto Grande waterfall, which divides the markedly different colours of the waters of Lakes Nordenskiöld and Pehoé. The bridge shown nearby on some maps has now collapsed and the track is overgrown with dense, spiky bushes. The return trip was a real struggle against a ferocious wind which literally blew us off the path at times.

The walk out crosses pampas grassland that ripples in the wind, a very different landscape from the rest of the trek. A herd of horses galloped past in the dramatic evening light while in the distance the Torres del Paine were visible once again through a gap in the encirc-ling mountains. Like Patagonia in general, those spectacular peaks inspire a longing to return.

Nick Green works as a photo editor in a Sydney photo-graphic library. He likes to combine travel to places such as Patagonia, Turkey and northern India with his interest in photography, and is also a keen bushwalker, paddler and ski tourer.

Torres del Paine

in the park by visitors.

Facts for trekkers, by Nick Green

Southern Patagonia has a similar climate to the of New Zealand. Mountain areas receive considerable rainfall and snow. The major weather problem is the strong wind which blows in from the Pacific. Temperatures can be quite high in summer but the eather can change very rapidly.

When to go

The best months for trekking are from November to March. Outside this season the pass is likely to be covered by snow but shorter walks are still feasible. My first visit to the park was in May; even though the days were very short, the weather was good. An attraction of Patagonia in autumn are the changing colours of the Nothofagus beech trees, which are related to those in Tasmania

If in flood, some of the larger rivers may be difficult to cross although we had no problems with any on the circuit. The Andes of southern Patagonia have a much lower elevation than the mountains further north and altitude is not a hazard for the trekker

Equipment and food

Good, windproof wet-weather gear is important. Other clothing can follow the layer principle to cope with either warm conditions or cold winds Footwear should be suitable for slippery, boggy tracks and rock scrambling. A good tent and sleeping-bag are essential for the circuit and it is advisable to carry a stove. Although we were always able to manage with firewood, camp-fire cooking would have been much more difficult in conditions wetter than those we experienced.

Some food items can be bought at a small store near the administration centre but it is best to buy provisions from supermarkets in large towns like Punta Arenas or Río Gallegos. Puerto Natales has a much smaller range of food. Freeze-dried meals

do not seem to be available in South America. Camping and accommodation

Most of the refugios are fairly rudimentary and may become crowded, particularly the ones by Laguna Amarga and Lago Pehoé which are popular bases for day walks. All have simple stoves but wood might have to be gathered from some distance away. There are several well-sheltered, officially designated campsites as well as a number of unofficial ones beside the track. In peak season there may be competition for space at some sites.

If walking the circuit in the anticlockwise direction, the Refugio Lago del Toro at the end of the trek provides cheap, basic accommodation with hot showers



Maps and references

The most readily available map is produced by Chile's National Forest Corporation (CONAF). Photocopies are issued free at the park and are available in Punta Arenas and Puerto Natales. The map shows major tracks, refugios and camping places. Approximate walking times between various points are given; we found these to be quite a useful guide.

There are brief descriptions in the South American Handbook and the Lonely Planet travel guides to South America, Argentina and Chile. Two other books which describe trekking in the park are Backpacking in Chile and Argentina by Hilary Bradt and John Pilkington (Bradt Enterprises, 1980) and Trekking: Great Walks of the World, edited by John Cleare (Unwin Hyman, 1988). It is worth noting that some details may no longer be accurate. For instance, the hut at Lago Grey and the bridge by Salto Grande have both been destroyed! Published only recently, Trekking in the Patagonian Andes by Clem Lindenmayer (Lonely Planet, 1992) contains much useful information and is the most up-to-date of all the books on the

Trekking alternatives

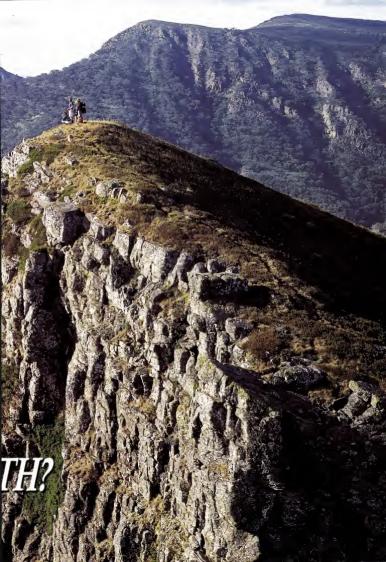
Besides the circuit walk described, there are several shorter walks and side-trips on tracks within the park. If you are properly equipped, it is easy to organize your own treks. Alternatively, there are ome trekking companies which include the park in tours of Patagonia. If you want to consider other walks in this region, the Moreno Glacier and the FitzRoy-Cerro Torre mountain group across the border in Argentina offer some most spectacular scenery. Further south, off the southern tip of the continent, there are also opportunities for trekking in Tierra del Fuego.

Getting there

The most direct flights from Australia to South America go to Santiago and Buenos Aires, the capital cities of Chile and Argentina, respectively. You can then fly south to either Punta Arenas in Chile or Rio Gallegos in Argentina. One alternative is to travel south overland by bus; another is to take the popular three-day boat journey down through archipelagic Chile from Puerto Montt to Puerto Natales. In summer a daily bus service connects Puerto Natales with the park, 145 kilometres to the north |

ATIONAL PARKS— WHAT ARE THEY WOR

lan Charles examines the economic



ut how can you possibly justify But how can you pussely in a locking up valuable resources in National Parks?', or a similar question, is often asked when people debate the environment. The last time I tried to reply, it took me five minutes to list the aesthetic. scientific and cultural reasons why such areas should be preserved, only to be told: Look, why don't you show me a book with all that in it. At least then I could look at its price on the back cover and find out what the value of those ideas is.' Well, that did it. I was fed up with trying to improvise responses. The time had come to prepare a short harangue to be delivered to anyone wanting an economic justification of National Parks.



Economic justification gone mad? World Heritage pub, Haast, New Zealand. Grant Dixon. Previous pages, walkers on Mt Magdala with the Crosscut Saw and the two peaks of Mt Howitt behind, in Victoria's Alpine National Park. Janusz Molinski

Consider for a moment what happens when people have open access to natural resources. The English commons were traditionally used by villagers to graze their animals, cut wood and dig peat. Each villager was interested only in maximizing personal gain, and the land was abused. This was a very inefficient way for the community to use its common resources as it resulted in a net loss of benefits in the long term.

It is wrong to assume that what is most advantageous to the individual will also provide the greatest social good. For instance, a company considering an investment decision begins by estimating the total costs and profits to itself over the life of the project. If it finds that there is likely to be a net profit, it can begin to consider the project as a viable economic activity. The project may well result in pollution of the local waterways, for example, but unless the company can be held liable for any environmental damage, such a consideration is irrelevant to its cost-benefit analysis.

If the community were to carry out a similar study before it allowed the company to proceed, it might well find that the economic losses to the fishing industry and the spoiling of a recreational amenity would outweigh any advantage the community stood to derive from the company's operations. So long as the developer does not have to consider the full consequences of a proposed enterprise, it is unrealistic automatically to associate development with a public benefit. Furthermore, if environmental damage costs were included in the company's calculations, many projects would be scrapped as uneconomic at the initial stage.

Therefore the first step towards justifying a National Park from an economic viewpoint is to know what the net value of developing the resource would be and this must be exceeded by the value of preservation. If such is the case, no further justification is required as all one is trying to establish is which form of competing land use will provide the greatest good to the community.

Preservation of the natural landscape results in both 'existence' and 'utility' benefits. For example, the mere existence of a park will ensure protection for rivers flowing out of any watersheds in the area. Such protection may increase the economic life of a dam further downstream by reducing siltation, Existence benefits may be very large, as in the case of Wollemi National Park adjoining Sydney. Because of its extremely rugged nature, the area has remained a wilderness, and the Colo River which drains it is the last remaining tributary of the Hawkesbury River without a dam. (See Green Pages.)

The Hawkesbury River is used for recreation such as boating, swimming and fishing, and supports commercial fishing and ovster-farming activities. It also receives much urban waste and an increased sediment load as a result of gravel-extraction operations. Before the Wollemi park was declared in 1979, the New South Wales Electricity Commission had planned to dam the Colo River to provide cooling water for a power station. To cut off a major input of fresh water into the Hawkesbury would have severely affected the economic viability of the recreational and fishery activities along the river. If avoiding a loss amounts to a gain, the gains from the park's establishment were substantial.

'Utility effects' are the ways in which we use or appreciate the resource—for example, through recreation. It has been argued that it is difficult to attach a price to utility values because they are intangible. Yet the pleasure derived from visiting a park, and the reassurance of knowing that something unique and antural is being preserved, are no less tangible than going to a theatre or enjoying a meal in a restaurant. Some benefits can be traded in the market-place and others cannot, but sa markets reflect the value people place on various commodities, market conditions can be

realistically simulated to establish the economic value of an environmental amenity.

The rapid social and economic development of western societies has led to the growth of cities while large areas of the countryside have been depopulated. From a social perspective it is highly desirable that people return to the country for recreation as this provides a long-term inflow of funds to rural regions and thus helps to counteract the adverse economic effects of depopulation. Visits to natural areas are likely to continue to increase: the more crowded urban life becomes, the more desperately we need the open spaces provided by parks. As leisure time increases for many people, they are better able to take advantage of the road networks which make it easy to visit natural areas. In comparison, to develop natural resources usually only provides a shortterm economic stimulus, with declining effect as the resource becomes depleted. The timber industry is an example of this.

When a park is created, the potential for commercial development is not lost but merely deferred to some future time, whereas to exploit a resource such as a forest now may destroy it forever. When the benefits of development closely approximate those of preservation, the decision should always swing in favour of establishing a National Park.

Once the park is gazetted, it becomes important to derive the greatest advantage from the parkland by means, for example, of multiple-use parks which are zoned to cater for different activities and thus to satisfy the needs of wilderness buffs as well as provide the amenities necessary for the less intrepid park visitor. However, for this only very large parks such as Kosciusko are suitable; most of our parks are too small to support multiple use effectively. Rather than try to squeeze something for everyone into every National Park, we must accept that some parks are well suited to wilderness experiences and others to more passive recreational pursuits.

Nearly 200 years ago, William Blake observed that 'the tree which moves some to tears of joy, is in the eyes of others just a green thing that stands in the way'. If Blake were writing today, he might well observe a third group of people who would prefer to leave the tree standing provided it cost them nothing to do so. Whether or not people value an area as an economic resource, for its aesthetic qualities, or for a combination of both, is irrelevant. One place can embody different values to different people. In the end National Parks are created because a majority of people consider the preservation of an area worth while-a situation often requiring public education.

lan Charles is an active bushwalker, ski tourer and rockclimber who has worked in a specialist outdoor shop and as a wildefeness guide. He has travelled extensively in South-west Tasmania, New Zealand and the Blue Mountains, New South Wales.

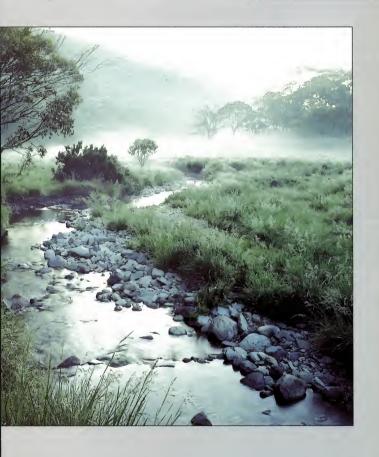
HE AUSTRALIAN ALPS

Tom Millar depicts their majesty



Right, early morning on the Cobungra River, Victoria. Below, carpet and candle heaths near Club Lake, Snowy Mountains, New South Wales. Bottom, the sun sets beyond Mt Cobber, Victorian Alps. Previous page, a small waterfall on Hollonds Creek, Bogong High Pinals, Victoria, with silky dasies in bloom. All photos were taken in the Australian Alps.





SNOWY DAZE Paddling this premier Victorian wilderness river, with Michael Back

WILD CANOEING

t was more than five minutes since I'd last seen Ian disappear under the violent, turbulent waters of the Snowy River.

I raced through the lower half of the large grade-4 rapid, searching the banks and the river ahead for some sign of him.

There was none.

Somehow I negotiated the drop of more than a metre into a large stopper followed by a series of high, seething pressure-waves which flung me around like a cork. The icy water smashed constantly in my face as I desperately peered around for Ian.

I wondered whether he could swim.

This frenetic pace seemed a lifetime removed from the sunny, tranquil setting which had greeted us the day before when we arrived at our launching spot—McKillops Bridge.

The Snowy River flows through the heart of the Snowy Mountains in the rugged, inaccessible country of north-east Victoria. The car shuttle from Dargans (13 kilometres from Bucham) to McKillops Bridge is 72 kilometres long and took us about 90 minutes.

It was a mild spring day and the Snowy Mountains were displaying all their panoramic but savage glory. Huge gorges fell away for what seemed an infinity, and the mountains rose and fell into the distance like the folds of a giant blanket.

Our first action on arriving at Mckillops Bridge was the traditional checking of the water gauge. Good news! The spring thaw and recent rains had swollen the Snowy to well above its ideal paddling height. Ian had paddled the Snowy twice before, but both times at low, summer levels, so even he wasn't sure what to expect.

Knowing the Snowy's wild reputation, we began the trip with trepidation and excitement.

The first hour on the river was very deceptive. Though high, it was wide and calm. Springtime yellow wattles made a cheerful splash of colour along its banks. Soaring above us majestically in tiers were the untamed ranks of the surrounding ridees.

We'd' been paddling an hour when sudenly, eerily, the silence was broken. Above the splash of the paddles a soft, haunting sound wafted over us. Faint at first, it slowly magnified. Puzzled, we would stop every few strokes and listen to the pure, liquid strains which seemed to flow from all directions.

We looked at each other. This was definitely Twilight Zone country. Rounding a bend, we came past a clump of boulders. There, seated on a sandbank, a young woman was playing a flute, for all the world as though sitting in her own living-room. Alone, and miles from any road or town, she had no visible pack or gear—not your average bushwalker!

Meanwhile, the river had begun to change. Speeding up as it narrowed, we went through a number of grade-3 rapids The rapids became more frequent. Little maneuvring was required since the river was so high: any rocks normally visible had long been swallowed up. On the other hand, the speed and power of the river were much greater. Even on these high grade-3 rapids we were tossed around like juggling-balls in the hands of a giant. We appreciated these rapids in



Michael Beck enjoying the plentiful water of the Snowy below McKillops Bridge on day one. Opposite, Beck in the Tulloch Ard Gorge. All photos Michael Beck collection

with high pressure-waves. It was exciting but harmless fun; even though we were thrown from side to side, there was little danger of falling in.

The river was flowing very quickly now and the rapids were generating high standing-waves. It was with a great deal of excitement and not a little apprehension that we thought of the more difficult grade-4 and grade-5 rapids waiting for us in the Tulloch Ard Gorge.

Taking advantage of a picturesque sandbank where boulders were scattered around like massive marbles, we emptied the kayaks and devoured a wellearned meal. Ian, not for nothing known as 'Mr Equipment', emerged from his

as 'Mr Equipment', emerged from his kayak with a fishing-rod and announced his intention to bag a swag of big fish for tea. After a short break we resumed with our energy restored—but without any fish. the knowledge that they were a good warm-up for the second day, when we would enter the Tulloch Ard Gorge.

There we would really earn our keep. We made camp at quite a challenging grade-4 rapid—a long one with high standing-waves, and an excellent spot to practise.

We emptied the kayaks of all our gear and spent an enjoyable hour in play. The high speed of the river made wave-riding quite tricky and exciting. I received the first baptism of the Snowy when I misjudged a nose stand into a stopper, and was tossed in and forced to roll.

Camp that night was a study in contrasts. Ian—a magician with his black hat—pulled everything but the kitchen sink out of his Everest. Like a poor relation, I looked across enviously as Ian reclined royally in his tent, complete with sleeping-bag, stove and a seemingly unending supply of food.

On the other hand, for some reason which now eluded me, I had decided to paddle a Hydro. Now anyone who has

paddled a Hydro knows that, whilst it may be a great white-water kayak, it is not renowned for its storage capacity.

This had meant a trimming down of inessentials—things like a sleeping-bag and a tent. So I curled up like a dog close to the fire with the one trusty blanket I had somehow managed to squeeze in I felt like a native bearer in a B-grade African-safari movie, guarding his Bwana while he sleeps cosily in his tent.

Next day the fun began. A couple of exciting grade-3 rapids with powerful waves as a warm-up, and we entered the Tulloch Ard Gorge.

It was all we had expected and more. She rock walls surrounded us and boulders the size of houses towered over us. Normally, in low water, the gorge's first rapid could be entered through an arch formed by a couple of these huge boulders. Today this entrance—the





Ian Dunn in trouble on the two-stage rapid in the Tulloch Ard Gorge. Not long after this, he was separated from his kayak and swept downstream. **Right**, Beck at the A-frame—the entrance to the gorge.

A-frame—was barely 30 centimetres above the water. The Snowy River was very high.

Shortly after the A-frame we came to the first grade-4 rapid of the gorge—an 'interesting' two-stage rapid, its parts separated by 20 metres of flat, fast water.

Entering the rapid through a one metre drop, I drove hard through a large stopper and paddled strongly through high pressure-waves to avoid an even larger stopper at the base of the rapid. Misjudging the power of the river, I was swept through the middle of the stopper. My stem caught and I was instantly tossed in.

I waited a few moments for the current to take me out of the stopper, then rolled up and paddled to the bank with a whoop of exhibitation.

Ian's turn. He came through the one metre drop in good style but hit the first stopper at an angle. In a flash he'd followed my lead: in he went.

Swept out of the stopper, he tried to foll, got half-way up and was knocked back in by the high pressure-waves. As he prepared to roll again, he was swept over the lower drop into the large stopper at the base of the rapid. Somehow he managed to roll up, but the nose of his kayak was sucked around into the middle of the stopper and he was flipped over again.

For several seconds he disappeared, then finally his head bobbed up. In desperation he'd been forced to leave his



kayak to escape the grip of the tenacious stopper.

He grabbed weakly for the kayak but missed it. Before he could swim to the side he was swept into the second stage of the rapid. His head bobbed up at the top of the one and a half metre drop, then disappeared over the edge.

Standing on a boulder at the base of the first rapid, I was caught off guard. By the time I'd jumped into my kayak and hit the second stage, a couple of minutes had passed. I knew I couldn't afford a capsize so it was with great desperation and urgency that I powered through the maelstrom that met me below the big down

After completing the second stage, I finally found Ian about 60 metres downstream, pulling his kayak to the bank. He called out that he'd lost his pad-

dle. I paddled on. Just as I was beginning to ask myself how well Ian would manage with a piece of driftwood, I spotted his paddle.

A little shaken after his underwater swim, Ian made some minor repairs to his Everest. Surprisingly, it had only a few superficial cracks around the cockpit to witness its ordeal.

Not much further on we came to the next notable grade-4 rapid—a one metre Ian decided that discretion was the better part of valour and volunteered to take photos. Smart man.

After taking the first three smaller drops I hit the final drop at great speed, nosed down all the way to my armpits, and was spat out like a pip from a lemon. With a yell of jubilation and with my heartstill pounding, I paddled free. What a fantastic ride! This was definitely the highlight of the trip.



drop followed by a short flat section and an even larger drop into a powerful chute that sucked the kayaks down like an enormous vacuum cleaner.

The power of the river through these narrow, high drops was awesome. The kayaks pierced the water at the base of these rapids like Olympic divers and plunged down for what seemed an eternity before springing free.

Several minutes downstream, the roar of the river built to a crescendo as though Niagara Falls were looming just over the horizon. We soon found out that it was only their little sister—Gentle Annie it was called by some

It was a huge grade-5 rapid which fell like a staircase in a series of dangerouslooking drops. First, half a metre, then three-quarters, followed by a drop of a metre and a half, with a large stopper at the base of each drop.

If I stood on stilts I still wouldn't be able to see over the top of it, I thought.

The middle section looked extremely hazardous so, after much studying, I resolved to give the left-hand side a go. There the rapid went through several smaller drops with a one and a half metre drop at the end.

We camped a couple of hours further on at one of the most beautiful spots on the river—New Guinea. Ian pitched his tent on a sandbank that faced a towering limestone cliff. Blackboys clung to the ridges and clefts which riddled its face. A family of eagles swooped to and from their nest at the very top of the cliff face.

Half a day of paddling remained. The river widened after leaving the Tulloch Ard Gorge and the sheer cliff faces were replaced by mountainous terrain.

The rapids were mainly of a uniform grade-3 standard now. Several were quite exciting without being unduly difficult. We played around on a couple of these, enjoying the freedom that came from paddling a less demanding stretch.

When we pulled out at Dargans three hours later we were well satisfied. We'd seen some of the starkest, most beautiful country Australia has to offer and had experienced rapids of a quality and power that had to be seen to be believed. It's a long way to go but, for anyone who wants to be considered a canoeist, the Snowy River is a must.

Michael Beck is a physical education teacher with a particular interest in recreation. He is a keen white-water paddler and skier, and has been involved in the development of skiing programmes for handicapped skiers. Outdoor pursuits led him to an interest in photography.

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SHOES

OING SOLITARY

Walking to one of the best peaks in the Blue Mountains, with Michael Christie

was picking my way slowly down the was picking my way stowy denie eastern end of Mt Solitary one Sundayslowly, because the terrain was steep-and I was remembering my very first bushwalk. on these same slopes more than 30 years before. It had been a disaster for a 13-year-old, poorly prepared, lost, exhausted—and, eventually. defeated and retreating. Anyone with any sense would have left and never returned. So I wondered what it was that had brought me back here vet again to cross Mt Solitary, and why Hoved it

Let me first give you an idea of the where, how and why of Mt Solitary. This beautiful mesa of Narrabeen sandstones is the remnant of an eroded and at one time more elevated landscape which emerged from the sea about 90 million years ago at a time when the ocean trench between New Zealand and Australia was growing. The subsequent dissection of cliffs and valleys has laid open a treasure trove of geological delights which are available to any walker inquisitive enough to look. The cliffs are awe-inspiring, both on Mt Solitary Jamison Valley, and provide some of the most magnificent scenic vistas in the Blue Mountains. The vegetation along the track varies from beautiful, cool, quiet, moist, shaded rain forest to typical Sydney sandstone varieties on the open ridges. As for more recent history, there are the remnants of old shale mines dating back to the 1870s. These have been pushed into the Permian coal deposits along the valley floor and in some cases extend right through the Narrow Neck Peninsula to the Megalong Valley.

The traverse of Mt Solitary is shown on the Hampton, Katoomba, Jamison and Jenolan 1:25 000 sheets published by the New South Wales Land Information Centre. Mt Solitary also appears on Myles Dunphy's classic Gangeral and Wild Dog Mountains sketch map. Arross

Mt Solitary lies in the centre of the Jamison Valley, south of Katoomba. This is readily accessible by road from Sydney, but perhaps the nicest way to start this walk is to take the air-conditioned train from Sydney, a journey of about one and a half hours. Arriving in Katoomba on Friday night, you can stay in a motel, in one of two YHA hostels, or camp out at the beginning of the track if you don't mind setting up camp in the dark. Alternatively, it is just as easy to start on Saturday morning after catching an early train.

The walk

The best way to approach Mt Solitary is from the Katoomba end, finishing the following day at Wentworth Falls. It is possible to do the walk in either direction, but starting at the Katoomba end is easier. On the first day you should aim to get from Katoomba to the



One of the airier sections of the climb up Mt Solitary, David Noble

eastern end of Mt Solitary. This is generally quite easy to do in about four to five hours. and the main precaution necessary is to carry water if conditions are dry.

Starting at Katoomba railway station, it's about 20 minutes' walk down Katoomba Street to the cliff edge where you get the first glimpse of the Jamison Valley. The valley is ringed with massive cliffs and Mt Solitary is visible in its entire length in the centre. The descent into the valley is at the Scenic Railway, either by rail or by walking down the track. The rail is in fact the old shale transport facility from past mining in the valley. It is an exciting ride and a quick way into the valley. The walk down takes longer but is very beautiful with moist ferny dells and waterfalls along the track. It is very easy on a well-graded and well-kept track and it would be a shame to

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AUSTRALIAN MADE: AUSTRALIAN OWNED

 missi f. Once in the valley, the track is very well defined and you merely go west at the bottom and follow it to Mt Solitary. At first the track winds around the floor of the valley through the old Dog Face rock landslide and into the rain forest under the eastern edge of the Narrow Neck plateau. It is well worth bottaining a leafler from the Secalic Railway which points out numbered items of floral, geological and historical interest.

After about an hour's walk you reach the Golden Staircase, which is another entry point into the valley from Narrow Neck. Further along, the track from the Golden Staircase to the Ruined Castle passes through dense, beautiful rain forest; you get ever more seating the properties of the staircase of turther along the track. If you are quiet along this section of track you will frequently see

Another hour's walk in the beautiful open rain forest will bring you to the Ruined Casile. This is the rocky remnant of a ridge which conce extended from Mt Solitary to Narrow Nock. The last of the shale mines is situated valued castle formation and contains good, drinkable water even in dry conditions. This is the last water before climbing Mt Solitary itself and is therefore a good sort to full up before the access of the solitary is the solitary itself and is therefore a good sort to full up before the access the solitary itself and is therefore a good sort to full up before the access the solitary itself and is therefore a good sort to full up before the access the solitary itself and is the solitary itself and its proposed to the solitary itself and its proposed to the solitary itself and its proposed to the solitary itself and it

From the Ruined Castle the track opens out to a ridge and eventually follows the Knife Blade to the top of Mt Solitary. This is about another hour's walk and is one of the most spectacular sections of the track. There are breathtaking views from the Knife Blade back towards Narrow Neck and into Katoomba. To the south, you can see right through to Kanangra and down the valley as far as Mittagong, If taking photographs, don't waste all your film too early; the views become bigger and better the higher you get. At the top of the track you are virtually in a lost world, a plateau encircled almost entirely by enormous cliffs. Once on the plateau, the track descends almost immediately into a small valley with cave-like overhangs. There is water here below the caves. If the creek should be dry immediately below the caves, you can always find water by following the creek down to the cliff edge on the north side of Mt Solitary—and you'll see some very rewarding views for your truthle.

The track now passes just to the south of the first cave, up to the hill, and almost immediately crosses to the north side of the plateau. Another hour's walk brings you to a beautiful campsite near the headwaters of Singa lingwell Creek.

This is the object of the first day's walk and by far the best place to camp. There is always water in the creek to the south of the campsite although, curiously, the water-table dips below the creek bed very quickly and the creek further on is usually dry.

The camp at 57 Creek must be one of the incest spots you are ever likely to find. It is well protected from prevailing wind by a large mountain to the south and the west. There is always abundant clear water. The ground is level and the campsle is set in a holiow above the general line of the creek—therefore dry 16 to the protection of the content of the damston Valley to the north.

There cannot be many scenes more moving than the Jamison Valley and surrounding cliffs litby monolight. After a reasonably early start, even the slower-than-average walker will reach this spot early in the afternoon. This leaves plenty of time to make camp, look around and enjow the surroundings.

It is cause for great concern that such a beautiful campies should be deteriorating through use—especially when you consider that the only people using it would be overnight bushwalkers. The average day walker does not usually get as far as the top of Mt Solitary. Those who make the trip should be user to take out all the rubbish they take in. our to take out all the rubbish they take in. The walk of the state of the

Day two

After a quiet and relaxed night's sleep, the remainder of the walk leads down the eastern side of Mt Solitary and then up the cliff face to Wentworth Falls. From the overnight campsite, it is approximately half an hour's walk to the Col. The Col is the most easterly point of the Mt Solitary plateau and is a magnificent platform for viewing the southern end of the Jamison Valley, a massive wall of the Kings Tableland, the headwaters of the Warragamba Dam and, across the dam, the Bimlow Tableland.

There is a log-book in the rocky look-out at the Col which records the comings and goings of people in various states of disrepair—depending on which direction they came from. Most of the really aerid comments are made by those who have just completed a full day's slimb up the Col in wet weather or fog. Fortunately, who have had the good sense to come from the Katoomba end and have just had a good night's sleep at a beaufitial campside and appreciative. Once off the end of the Col, the track becomes steep, it is not easy to see how to get off the Col. The track falls to the

northern side of the look-out, then winds underneath it and begins to head a little more to the south, but the overall bearing is magnetic east.

The track to the creek is not used a great deal because not many walkers go right over Mt Solitary. Sometimes the track disappears altogether. If you should lose it, you won't go terribly wrong by continuing on an easterly bearing until you hit Kedumba Creek. If you are in real bother, there is a fire track not too far to the south which you can reach on a seatherly begaing.

All going well, it should take approximately an hour and a half from the Col to Kedumba Creek in the bottom of the valley. Most people will get a little bushed without becoming seriously lost. To take this into account, allow about two hours for the trip from the Col down to the creek.

Kedumba Creek is one of the most beautiful waterways in the Blue Mountains, It is of medium size, about 20-30 metres across, and paved with smooth, cobbled river stones. It has many long, quiet stretches and occasional small, shallow rapids. The banks range from sandy shelves to medium-sized cliffs composed of Permian marine deposits. The whole creek is shaded in by a large overhang of beech and casuarina, which changes to gum on the lower slopes above the banks. It is a most attractive and interesting creek but is unfortunately very heavily polluted by effluent from Katoomba. Don't drink this water under any circumstances without at least using purifying tablets.

While on Kedumba Creek it is worth while

While on Kedumba Creek it is worth while, if you have the time and the inclination, to have a careful look at the low clifflines on its banks and among the creeks that enter it. Close inspection will nearly always be rewarded by the sight of foosilized sea shells from approximately 300 million years ago. The creek is a good spot to have lunch on the second day; this gives everyone a chance to explore a little.

In the afternoon, you have to get out of the valley and back to Wentworth Falls. By far the nicest way to do this is to take the old Kedumba track, Kedumba Creek meanders more or less due south but at one spot, due east of the Col. it turns east and south, then west and south. This has the effect of producing a large, reversed letter C in the creek almost east of the Col. The old track leaves the creek on the ridge which meets the top of the C. This track used to be the only way into the valley but has fallen into relative disuse since the four-wheel-drive Water Board road went in. and probably hasn't been used very much in 30 years. Nevertheless, it is still there and is still quite easy to follow, and is by far the prettiest and nicest way out of the valle

A climb of about an hour and a half will bring you from Kedumba Creek to the top of the cliff, and another half hour's walk along the fire track leads you to the Queen Victoria homes, where you can phone a taxi to Wentworth Falls railway station.

Now that you've 'done Solitary', I'm sure you'll want to do it again. Do look after it. ■

you'll want to do it again. Do look after it.

Michael Christie is a native of Sydney who has walked in the Blue Mountains area on and off for 30 years. He cut his bushwalking teeth in the Katoomba area and it has held a special attraction for him ever since.



Goose Down Bags for the Back of Beyond



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- RECTANGULAR SERIES DOWN FILLED Ultra compact hag, cycle touring, su spring hiking or canoe touring Compact travel \$189.00 MARCO POLO \$239.00 nt box wall, sec. pocket Midweight hiking or travel, non-alpine 3 season use Chevron box wall, sec. pocke (3d \$289.00 (de \$299.00 Hiking, travel, camping, 3 season or nor alpine use Chevron box wall, sec. pocket 700 ama 1.50 km 3-4 season NAVIGATOR (Std) \$ 329.00 NAVICATOR DITIE DOWN FILLED - MUMMY SERIES 3 season hiking Chevron chest buffles, slant box wall neck muff, Hipora foot, see pocket Vertical chest buffles, slant box wall, neck muff, Hipora foot, see pocket 1.50 kg MOONRAKER 4 season hiking 700 gg (Std) \$339.00 Ski touring, snow, alpine hiking 4 season snow (Std) \$389.00 (Le) \$409.50 High altitude, snow, mountaineering SNOW LEOPARD V Tube buffles, vertical chest buffle neck muff, Hipora foot, sec. pocket (Std) \$429.50 (Lg) \$449.00

OWN SLEEPING-BAGS

John Chapman gives you the low-down on down

ne of the most essential pieces of equipment for wilderness adventure activities is a sleeping-bag. Even though synthetic fillings for sleeping-bags have improved, down from ducks and geese is the most efficient, light and compact material available. There are different grades of down; those of the highest quality, which consist mainly of soft breast feathers, have become known as superdown.

This excellent material is not perfect; when sopping wet, superdown is virtually useless as an insulator, and even moderate dampness reduces its effectiveness. Its other drawback is its high price. Because of this, most of us try to make do with a single sleeping-bag for all conditions; to own more than one is a luxury. But a sleeping-bag which keeps you warm in the snow will be far too hot in coastal Queensland. A common piece of advice is to purchase a bag suitable for the coldest conditions you expect to encounter, but with long zip openings. Whilst zips do add weight, they let you use the bag in greater comfort in a wider variety of conditions: if you're too warm, open the zip and cool off.

It should already be clear that no one bag is best. Most manufacturers and suppliers in Australia have several models designed for different conditions. Any buyer will have to take price, weight, expected use and shape into account. Quality of manufacture and construction will also have an influence although these factors can be very hard to judge from external appearances. Because of the nature of sleeping-bags, many details of manufacture are hidden. Whilst most manufacturers do a very good job, some of these details have a bearing on the effectiveness of a sleeping-bag and on its life expectancy.

In designing a sleeping-bag and controlling the movement of down within it, there are many construction methods to choose from. The least effective is known as sewn-through. which is cheap to construct but provides no insulation at the seams between down-filled compartments. As there are many such seams, a considerable amount of heat is lost. Fortunately, this construction is now rarely used in specialist bags.

Virtually all down bags use a wall construct-

ion: the inner and outer shells are separated by walls of material. Thus in theory there are no cold places along the seams as the thickness of the insulation is fairly even. There are box walls, slant walls, overlapping walls and V-tubes. There is plenty of propaganda regarding each method and how it is better than the others. Each has its good and bad points, and the most appropriate method is related to the down type and quality and the



There'd better be a warm sleeping-bag on the other side of the creek! A wet crossing, Blue Mountains, New South Wales. Andrew Cox

overall fill weight. In general, light bags are best made with box walls or short slant walls whilst the more complicated constructions are used on heavily filled bags. However, I wouldn't select or reject a sleeping-bag only on the basis of construction type.

A factor which significantly affects the performance of a sleeping-bag is the density of the down filling. Large, spacious compartments hold lots of air but allow down to move around easily and hence enable heat to escape. In extreme cases the down will simply fall away by gravity from your shoulders and hips. This may not happen when the bag is new, but as the down ages such effects become more obvious. At the other extreme, overfilled compartments do not use the down to best advantage and waste some of its insulating

To try to measure all this for a survey is almost impossible. A reasonable test which

you can perform is to clap the bag lightly between your hands once and then observe how the affected area relofts. It is unreasonable to expect it to recover fully to its previous height, but it should return most of the way. If the clapping action has pushed most of the down away, the likely cause is overlarge compartments for the amount of filling. Large compartments look impressive on the shop shelf but may not perform as well as smaller ones correctly filled.

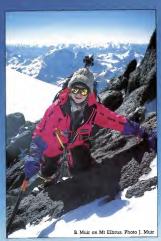
Well over 100 different down sleeping-bags are now sold in Australia. It is not possible to review so many in detail; we have therefore chosen a representative sample for this survey. The majority of those excluded are mentioned in the comments column; in most cases they are very similar to other models but with a different fill weight.

The shapes are described as rectangular (R): tapered rectangular (TR); wedge (W), shaped like a mummy but with a flat foot (F); and mummy (M) with a box foot (B)-in decreasing order of roominess. The more space inside a bag, the less warm it will be for

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Climb Mr Viscon and doint
discovered with the ward
upside-down.

No climbing experience is





a given weight. If room to move is very important to you, choose a rectangular or tapered rectangular shape. If minimum weight and maximum warmh are high priorities, the tight-fitting mummy shape would be better. To give you an idea of how tight mummy-shaped bags can be, in most you can't get your hands down to take your socks off. There are also bags shaped in between the extremes. It is a good idea to lie inside a bag to see whether it is suitably long and room?

The fill weight given is that supplied by the manufacturer. Data for the type of fill used have not been included. There is a standard test for measuring the lofting power of superdown, but down varies from one shipment to the next and the test figures also depend on how much time has elapsed since the down was compressed. It would be impossible for manufacturers to specify the loft of each and every batch when producing catalogues, so it is up to you to inspect the bag you consider buying, compare it with others, and judge the down quality yourself. It is interesting that some manufacturers who use very high quality downs were reluctant to give figures at all. In general the best superdown, which some specify as 95/5

superdown, has a loft of about 550 cubic inches per ounce. Whist down of higher loft does exist, it is rare and high figures should be viewed with some scepticism. It abag contains down different from the standard, this is indicated in the comments column. There is one notable exception: some manufacturers use down hand-picked to remove heavier feathers and improve its thermal efficiency—a valid alternative which comes at a premium

There are many reasons why down varies in quality and most sleeping-bag manufactures strive to obtain the best available at the time. Even the age of the bird (the older the better) and at what time of the year it was plucked make a difference to lofting power, but they can hardly be taken into account in a survey. The best advice is actually to inspect the bag you buy rather than accept it, unopened, from the shelf.

There has always been much debate about whether goose or duck down is better. The conventional wisdom is that goose down is better, but there is virtually no discernible difference between the two. In fact, most down in Australia comes from a 'duck' which ornithologists accept as a member of the goose family—when is a duck not a duck? Hence the

survey does not consider down type. Should down be white or grey? The very highest lofting down (eiderdown) is actually brown, but, whilst okay for doonas, is not very good for sleeping-bags because it lacks resilience; in short, colour is irrelevant.

I have measured the loft of each bag at the waist and this gives some indication of the amount of down insulation provided but not of how effectively the down is used.

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One simple and effective way to reduce the movement of down is to incorporate a side-block baffle. This prevents the down from the top of the bag migrating round the sides to the bottom. Down squashed underneath provides little insulation so the

	Shaper lock type	Measured dimensions, i.v.w, cerémetras	Claimed till weight! total weight, grams	Recom- mended use, seasons	Measured lot at waist, contimetres	Bettle type/ configuration	Side-block befler sealed in- ternal baffles	Draugnt tube	Zp(s)	Draught collar	Dimensions of stuff sack provided, I x d, centimetres	Commerts	Appro
Aurore Australia Nanderer	TRIF	175 x 68	350/1000	1	8	Sewn-through hoszontal	NY	Sewn-through	28.F	N	30 x 14	90/10 down	14
7 Below	TR/F	183 x 64	800/1700	3	17	Box well/horizontel	NY	Sewn-through	28.F	N	40 x 19	Cotton inner	15
Bay Bew	мв	172 x 84	500/1200	3	18	As above	NY	Sewn-through	s	N	31 x 16	Cotton inner	,
fotham	R/F	180 x 88	650/1600	23	16	Siert well/honzontel	NY	Sewin-through	28.F	N	30 x 19	90/10 down	2
0 Below	TR/F	179 x 68	1000/2000	3	16	Box wall/horizontel	NN	Sewn through	28,F	N	40 x 22	Catton inner	2
Downia Australia													_
Iteeline 400	TR/F	192 x 88	400/1200	3	10	Box walkhorizontal	NY	Sewn-through	28.F	N	30 x 13	85/15 down	1.
raeine 620	TR/F	192 x 88	620/1400	3	13	As above	NY	Sewn-through	2 S, F	N	31 x 18	85/15 down	2
Snowfield 900	TR/F	196 x 88	900/1700	4	20	As above	NY	Sewn-through	28, F	N	33 x 20	85/15 down	3
airydown New Ze.	aland TR/F	170 × 89	550/1500	2	10	Slent wall, Whorizontal	NN	Double 3-D	28.F	Y	27 x 19	Entrant tool	3
ahtemati	MB	175 x 66	580/1500	3	13	As above	NN	Double 3-D	8	v	27 x 19	Entrant tool Entrant look, Entrant shell option	2
Cobra	TR/F	170 x 68	700/1700	3/4	16	As above	NN	Double 3-D	28.F	Ý	30 x 19	XL option, Entrant foot,	3
loopen	мв	170 x 88	700/1600	4	17	As above	NN	Double 3-D	s	Υ	27 x 19	Entrant shell option XL option, 90/10 down, Entrant	4
lasausko	TRE	170 x 85	900/1800	4	15	As above	N/N	Double 3-D	28.F	Y	32 x 21	foot, Entrant shell option XL option , Entrent foot	
versest	MB	170 x 85	900/1900	4	19	As above	NN	Double 3-D	8	Ÿ	32 x 21	XI. option, 90/10 down, Entrant foot, Entrant shell option	5
												1001, Entrart shell option	
reedom Australie lackpacker	TRF	184 x 66	400/1200	3	11	Box well/honzontal	NN	Sewn-through	2 S, F	N	31 x 13	90/10 down, japone inner	1
nowline	R/F	180 x 82	650/1750	3	15	Silent well/honzontal	NY	Sewn-through	28.F	N	30 x 18	As above	2
lker	148	187 x 89	80011600	4	16	Bas well/horizontal	NY	Sewn-through	s	Y	31 x 22	90/10 down	2
otreme	RIF	179 ± 64	800/2000	3/4	17	As above	NY	Sewn-through	28, F	Υ	40 x 18	90/10 down, japana inner	2
&H Australia													_
one Planet Bungle Dreap Hotel	R/F	190 x 88	800/1300	3	14	Box wall fronzontal	NY	3-D	SF	N	27 x 19	Average 60/20 down	2
ne Planet Pelion	MB	198 x 74 184 x 71	500/1200 800/1600	3	13	As above	NY	3-D	SF	Υ	30 x 17		3
ne Hanet Peron unh-lite	TR/F	184 ± 71 188 x 70	700/1400	3/4		As above	Y/Y	3-0	8	Y	28 x 19	Remorced foot, 80/20 down	3
ush-lite Super	TR/F	188 x 68	850/1600	4	16	As above	NY	3-0	SF	Y	30 x 18		4
andelion	MB	186 x 68 188 x 72	700/1400	4	19	As above Roy wall trived	NY	3-0	SF	Y	30 x 20	XL option	4
inter-ide	MB MB	175 x 66	900/1700	4	24	Start wall/mast	Y/Y	3-0	8	Y	30 x 18		5
ico Bag	M8	180 x 74	1100/2000	4.		As above		3-0	S	Y	32 x 20	Elastic inner shell option	5
aro sag Atra Pink	MB	180 x /4 180 x 64	700/1500	4+	28	AS 200YE	Y/N	3-D	8	Υ	36 x 22		65

V bonsorship and supply for many unique adventures has resulted in Mountain Designs sleeping bags being chosen for high altitude mountaineering on Himalayan giants, Arctic ice walks and Antarctic explorations Our Mountain Series utilises all the experience gained

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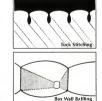
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	Shape' foot type	Mazsurad dimensions, I x w, centimetres	Claimed till weight/ total weight, grens	Recom- mended use, sazsors	Measured loft et waist, centimetres	Baffe type/ conflouration	Side-block beffe/ sealed in- ternal baffes	Draught tube	Zipisi	Draught	Dimensions of stuff sack provided, I x d, centimetres	Comments	Approx price.
Cothmendu China	-		·										
Auroo Polo	TR/F	183 x 65	350/900	2	13	Box well-horizontal	NN	3-D	2 S. F	N	35 x 18		239
a Percuse Invigator	M8 TR/F	161 x 66 183 x 63	500/1300	3/4	15	Stant wall/honzontal	NN	3-0	8	N	36 x 20	XL option	269
lavigasor Sponraker	M8	183 x 63	700/1500 700/1600	. 3/4	16	Box well horizontal Start well horizontal	NN Y/N	3-D 3-D	2 S, F	N	41 x 21 45 x 20	XL option	329
Avigator Plus	TR/F	180 x 66	850/1700	4	19	As above	NN	3-0	28 F	N N	45 x 20 40 x 24	XL option, waterproof foot XL option	339
Rundoodle	M8	183 x 61	900/1800	4	21	Vinced	Y/N	3-0	8	Y	42 x 24	XI. option, waterproof foot	366
Snow Leopard	мв	180 x 66	1077/2900	4+	24	As above	Y/N	Double 3-D	8	Y	43 x 27	As above	430
Asopac Naw Zealar Associato	d TR/B	177 x 66	300,000	2	11	Box walk/moved	YY	None	s	N	23 x 16	90:10 down-Wed top foot,	270
Frafty	мв	167 x 66	550/1200	1	13							mut sieeve	
Chrysals	M8	176 x 67	700/1400	34	15	As above As above	YN	Double 3-D	s	Y	30 x 16	XI. option, 90/10 down, Reflex foot	370
Odyssey	TR/F	167 x 66	850/1500	34	30	As above Box wall/horizontal	N/Y	3-D	2 S. F	Y	31 x 18	As above XI, option, 90/10 down	400
Enber	MB	182 x 65	550/1300	3	17	Box wall/record	YN	Double 3-D	8	Ÿ	28 x 18	XL option, 90/10 down. Reflex shall	445
Sapphra	мв	182 x 65	900/1700	4	17	As above	YN	Double 3-D	s	Ý	30 x 21	As above	570
South Cal	MB	182 x 65	1200/2000	4+	23	As above	YA	Double 3-D	\$	Y	33 x 23	Refex shell	680
Mont Austraka Constellation 6	TR/F	175 x 71	800/1400	34	14	Box well honzontal	NY	3-0	28.F	N	32 x 20		
Nomad	TRE	180 x 72	350/1000	2	9	As above	NY	3-0	28.F	N N	32 x 20 26 x 13	80/20 down, Mileir shell option	264
Voyager	MB	186 x 65	400/1040	3	13	As above Box walkinized	Y/Y	3-0	28.F	N N	26 x 13 29 x 16	Down-filled top/foot, mat sleeve	271
Brindsbella	WF	177 x 71	700/1400	34	13	Box wall/honzontal	NY	3-D	28.F	V	29 x 16 30 x 19	Liown-rised topitoot, mat sleeve	319
Nadgee	TRIF	175 x 74	550/1250	3	11	As above	NY	3-0	28.F	Y	30 ± 19		330
Franklin	WF	178 x 72	850/1600	4	16	As above	NY	3-0	28 F	Ÿ	36 x 20		429
Spridnit	MIS	189 x 66	750/1550	3/4	16	Ros well mosed	YN	3.0	8	Ÿ	29 x 19		649
Telemark	MB	189 x 68	850/1650	4	21	As above	YN	3-0	8	v	27 x 20		489
Main Range	мв	182 x 65	950/1900	44	24	As above	Y/N	3-0	s	Y	37 x 20		525
Mountain Designs													_
Snowine Travalite 300	TRF	181 x 69 188 x 70	700/1400	3	12	Box wall honzontal	NY	Sown-through	SF	N	33 x 17		229
Dedos	MR	171 x 69	550/1300	3	13	As above As above	N/Y Y/Y	Sewn-through 3-D	SF	N	21 x 15		249
Adela 700	TRE	171 x 69 183 x 66	700/1800	3	13	As above			2 S, F	Optional	30 x 17	XL option	299
Travalta 600	WE	167 x 66	800/1200	3	13	As above	N/N N/Y	3-D Sewn-through	28, F 8F	Partol	31 x 17 34 x 17		309
Standhart	MB	171 x 69	700/1500	3/4	14	As above	YY	3-D	28.F	N Ontional	34 x 17 32 x 17	and a	329
Rizoy	WF	182 x 66	850/1800	3/4	15	As above As above	NY	3.0	28, F 28, F	Optional	32 x 17	XL option	349
Bhde	MB	170 x 65	903/1800	4	17	Start well/horzontal	YN	Double 3-D	8	Optional	36 x 19	XI. option	379 379
Serac	мв	172 x 66	800/1700	4	19	Vhorizontal	Y/N	Double 3-D	s	Y	30 x 19	Mileir shell option	469
Paddy Patin Austra	4								-				
Klandra	TR/F	183 x 63	520/1100	2	14	Box walkforzontal	NY	Sewn-through	SF	N	32 x 17	80/20 down, Traveller similar model	249
Feetherlop	TR/F	190 x 69	610/1400	3	15	As above	NY	Sewn-through	SF	N	35 x 19	60/20 down	299
Cloudmaker	TR/F	183 x 67	750/1400	3	15	As above	NY	3-0	S/F	N	32 x 19	XL option, 90/10 down	359
Hotham	TR/F	190 x 71	760/1700	3	15	As above	NY	3-0	28,F	N	35 x 20	90/10 down, cotton inner	379
Brindabelle	TRIF	183 x 67	850/1600	3/4	16	As above	NY	3-0	2 S, F	N	35 x 20	90/10 down	399
Bimben	MB MB	185 x 74	550/1200	3	14	As above	NY	3-0	\$	N	33 x 16		399
Gingera		186 x 73	700/1400	3/4	16	As above	NY	3-0	s	N	32 x 16		459
Jagungal Twymam	MB	163 x 69 163 x 66	900/1700	4	22	As above Signt walkfortzontal	YN	3-D 3-D	8	Y	35 x 20 38 x 20	Gore-Tex shell	559 779
Puredown Australia								-		•			
Backpacker None	TR/F	185 x 65 192 x 66	300/900 800/1500	2 34	6	Sewn-through horzontal Box well-horzontal	naine N/Y	Sewn-through Sewn-through	8/F 2 S. F	N N	23 x 13 36 x 16	Jepans inner XL option, japane inner	190
Roman Australia	-					removed		U.An-anough	20.7	-	W 1 10	ov short labora street	270
Maratah	TR/F	186 x 66	750/1900	2	14	Box well/honzontal	NY	3-0	2 S, F	Υ	36 x 16	15.65 downfeathers, jepara inner	160
Flight 505	TRIF	185 x 62	750/1750	3/4	16	As above	NY	3-0	2 S, F	N	33 x 16	70/30 downfeathers, jepera inner	275
Minterwarm	MB	180 x 66	790/1500	4	17	As above	NY	3-0	S	Υ	36 x 16	90/10 down	320
Flight 105	WF	174 x 69	750/1400	3/4	16	As above	NY	3-0 .	28, F	Υ	34 x 16	90/10 down	325
Right 106	TR/F W/F	185 x 68 174 x 69	750/1800 1000/1700	3/4	16 19	As above As above	NY	3-D 3-D	28, F 28, F	N Y	32 x 19 36 x 21	90/10 down, japera inner 90/10 down	325
Seleva Chris									20,7	-	W121	20.12.0081	393
Apine 550	TRF	192 x 70	550/1400	3	12	Start walthorizontal	Y/N	3-D	2 S, F	γ	37 x 16		259
Jitro 660	мв	186 x 72	660/1400	3/4	13	As above	Y/N	3-D	SF	Υ	35 x 19		298
Npine 750	TRF	192 x 72	750/1600	3/4	15	As above	Y/N	3-D	2 S. F	Υ	36 x 16		296
Npine 900	TR/F	188 x 70	903/1850	4	17	As above	Y/N	3-0	2 S, F	Υ	37 x 21		349
Jira 900	MB	188 x 70	900/1600	4	19	As above	Y/N	3-0	S/F	Y	37 x 21		349



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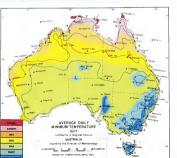
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idea is to keep the greatest quantity of it on top where it is most effective. Sewing in a side-block baffle is an awkward job, and some manufacturers leave out the seam between the walls and the side-block baffle—something the customer will never see.

the customer will never see.

Leaving this seam open allows down to move from one compartment to the next—not from above to below but from head to foot. This movement of down does not happen quickly but in time most of the down can end up in the foot of the bag. If the bag becomes we in use or is washed, the wet down clumps move very easily through such gaps. It can be slow and difficult to move the down back and often the best method is to open the side seam and restuff the bag.

It is not easy for a machinist to close every agap, and in preparing the table I considered that seams were left open if the gap was wider than three of my fingers. Gaps smaller than this will not allow much down to make through. This is not to say that a bag with gaps between baffies is poorly made, but that you must take great care when washing it. The extra work required to close the seams properly will be reflected in the reflected in the orice.

polyety white relievation the piace assured internally. The dispit, from the foot to the new particular to the present of the presence of the

Zips give some control over temperature. Most mummy bags have only a side zip; rectangular bags (with a flat foot) have both side and foot zips, allowing them to open out and function as a blanket. A zipper is an avenue for heat loss and the design of the covering draught tube is important. Most makers have now adopted the three-dimensional tube, which provides a very effective seal. Check the two ends of the zip: there should be no potential gap. Some of the warmest bags have draught tubes on both sides of the zip. Zips can snag very light sleeping-bag cloths and most draught tubes have some sort of stiffener to reduce snagging. This is easily tested by getting inside the bag and zipping it open and shut several times.

open and shut several times.
Rating sleeping-bags is always highly controversial. Temperature ratings have largely fallen out of favour. The problem is that there are many factors other than the external temperature which influence how warm you feel in a sleeping-bag. These include your metabolic rate and your level of fatigue. A sleeping-bag that soo hot one day may be the control to the second of the control of the second of the s

less-than most people, read such ratings with that in mind.

Virtually all sleeping-bag shells are made of nylon; see 'comments' for exceptions. At present most manufacturers seem to agree that the English nylon known as Fetrex is the best available—but expensive. Some use other nylons which do the job well but are stiffer to the best available—but expensive. Some use other the head in the stiffer to the stiff to

I believe that sleeping-bags made in Australia and New Zealand are in most cases equal and in some cases superior to those made elsewhere. There are enough manufacturers here to provide healthy competition and, as can been seen from their advertisements, they all seem to try hard to outdo each other, creating a very high standard. Some have even creating a very high standard. Some have even that this trade will increase as more people discover the quality of our product.

Imported bags are often a little cheaper but are usually heavier for the same warmth. Cheaper downs and poorer construction methods are common in imported models, which often try to compete by being lower priced. This may explain why most shops have some imported models but prefer to self the locally made bags. Another advantage of local manufacture is that it is easy to have the grelified or regalered at a later dute if the shop as an intermediary; if that falls, contact the factory direct.

When it comes to selecting a bag you should decide what you expect from it, under what conditions you intend to use it, and what shape you favour. This will harrow the rapid to one or two from each manufacturer. All else being equal you should give preference. Zelandi, Stepping Sapar saguaranteed against your should give preference and the same and the s

fill weights before purchasing. If you choose the right bag, you should expect it to last for five to ten years. Once it begins to lose some of its warmth, you can either boost it by adding down (which will make it heavier) or put it saids of the warmer seasons only. So much depends on a seeping-bag that my main advice is to forget the price and ensure that you select the correct one. Even \$100 looks paltry when you've spent a few nights uncomfortably cost neep respective of the outdoors is easily spouled by experience of the outdoors is easily spouled excellent investment and worth.

John Chapman (see Contributors in Wild no 1) is one of Australia's most travelled and widely respected bushwalking writers. He is particularly well known for his books of Tasmanian track notes.

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ATER PURIFIERS AND FILTERS

Another little drop won't hurt—a Wild survey

Water, water everywhere...

Do you remember the good of days when you could scoop up a mugful of cold, clean mountain water whenever you were thirsty? In Australia that is not so long ago and, fortunately, it can still be done in many parts of the buch

However, with increasing pressure on Australia's environment from industry. agriculture, forestry-and from bushwalkers the incidence of polluted lakes and waterways is on the increase. Walkers, climbers and others who venture into the bush need to be aware of the types of water pollution they might encounter and of the techniques to neutralize it.

Water pollution can be broadly grouped into three categories. The first, and perhaps the most common in Australia, is bacterial contamination. Unless otherwise stated, I will use the word 'bacteria' to include viruses.

cysts, worm eggs, amoebas and other microscopic living organisms in addition to bacteria themselves. These arise mainly from the inadequate treatment of human and other animal wastes

The second is chemical pollution, which can range all the way from acid rain to heavy metals—cadmium and mercury, for example. Common chemical pollutants are nitrates and other nitrogen compounds from fertilizers; organochlorine compounds from pesticides; and hydrocarbons from leakages and spills in the fossil-fuel distribution system. Most chemical pollution comes from industry and agriculture. It is a major problem in Europe, eastern North America and the more industrialized parts of Asia, but is relatively rare in the Australian bush.

The third type of water pollution is caused by particulates-relatively large particles, usually of inorganic origin, that are suspended in the water. The fine mica particles that give the milky colour to glacial melt are a classic example. Particulates are usually found in fast-flowing, turbulent streams where mixing processes are strong, and may or may not also be associated with bacterial and chemical pollution. Water murky with organic matter poses a special problem: the active ingredients in all chemical purifying treatments react with the organic matter and are 'used up' before they have time to take

The first step is to estimate the level and type of pollution by evaluating the source and pathway of the water you intend to use. The golden rule is: be aware of the land use in the catchments through which the water has passed. Check topographic maps carefully



Good for the complexion, perhaps, but would you drink it? A challenge for any water purifierpool, Welcome Flat, New Zealand, Grant Dixon

and use local information to corroborate what the maps indicate wherever possible.

For example, you may be camped next to a lovely, clear stream in the midst of a pristine forest, but if a tributary which joins your waterway upstream from your campsite has flowed through grazing country, it is likely that the water you will use has been contaminated by bacteria.

More obvious examples are waterways downstream from human settlements. The Blue Mountains are a well-known case, and so are waterways downstream from ski resorts. such as the Thredbo River in southern New South Wales. If you drink water directly out of these streams, you are putting a lot of faith in the efficacy of sewage-treatment plants.

A good example of the recent contamination of water supplies by bushwalkers and campers is the degradation of the alpine lakes in Kosciusko National Park. Bacterial contamination, particularly by giardia, has risen sharply in the last ten years due to the heavy overnight usage of the small catchments of the lakes. The New South Wales National Parks & Wildlife Service has banned camping in these

catchments and has undertaken a campaign to teach walkers more ecologically sound toilet habits for the alpine country. There are also reports of bacterial contam-

ination in lakes and waterways in the more heavily travelled areas of the Tasmanian bush. The Cradle Mountain-Lake St Clair National Park and the Franklin River are examples.

Though not common, there are a few cases of chemical pollution in Australia's National Parks and wilderness areas. These often arise from abandoned mines upstream, and can be difficult to detect unless you are familiar with the area. It is probably best to avoid water

from catchments containing mines altogether. Once you have assessed the likely quality of the water you will be drinking, how do you deal with any potential problems?

Several techniques are available depending on the type of contamination. The table gives a summary of the various methods and their relative cost per litre of water purified. The two figures given for the cost of filtering reflect the initial cost of the filter, the cost of replacement filter elements, and the frequency with which these must be replaced. Some filters become considerably more economical to operate as the quantity of water treated increases. These figures, like those for the filtration rate and the life of the filter element.



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are approximate and will vary according to how badly the water is contaminated and how conscientiously you clean and replace filter elements. For that reason manufacturers urge considerable caution in the use of these figures: some do not subscribe to the use of such figures at all. In any event, extra cost is a small price to pay if it means the difference between health and sickness

One means very commonly used to purify bacterially contaminated water, but not listed in the table, is simply heat. By boiling the billy for your cup of tea, you will purify the water as well. For best results be sure that the water stays on a rolling boil for up to 20 minutes.

Another technique is to use chemical agents to kill the organisms in the water. These chemicals are usually in tablet form and are very convenient to use. Commonly, one tablet treats one litre of water in about ten minutes. Several widely available brands are listed in the table.

A number of active ingredients are used. Common ones are anions of chlorine and iodine, such as hydroperiodide. These chemical species can give rise to a mild halide, or recommended for extended use, and pregnant women, small children and people with certain health conditions should avoid iodine altogether. If in doubt, consult a doctor,

Chamical treatments

Another active ingredient is the silver cation. but here it should be noted that the treatment neutralizes bacterial contamination only in the strict sense of 'bacterial': it does not act on worm eggs, amoebas or viruses. Note, however, that silver has no adverse effects on health even if taken in large doses.

A 'do-it-vourself' chemical method that can be quite effective is based on an iodinization kit-a 30 millilitre glass bottle with a bakelite (not plastic) lid, which contains about six grams of iodine crystals. These kits are

available from chemists. The idea is to fill the glass bottle with water.

shake it for a few minutes, and then let the iodine crystals settle to the bottom. Wait for a few minutes, then decant the liquid (not the crystals) into a litre of contaminated water. Wait for 20-30 minutes and the water will be fit to drink. This method is effective against all types of bacterial contamination in the broader sense, and a kit will treat about 500 litres of contaminated water in total

The technique has some drawbacks. First, the treated water has a very strong, unpleasant halide taste. Second, the accidental consumption of the iodine crystals will result in death: six grams of iodine is above the lethal dose. And the other caveats mentioned above with reference to hydroperiodide preparations apply as well.

The iodinization kit is probably only advisable for long trips in areas where water is consistently and heavily contaminatedtrekking in Nepal, for example. For all conceivable situations in Australia, tablets based on hydroperiodide are preferable. They are just as effective, more convenient, and safer to use. Note that the action of all these chemical treatments is slower, and the required 'contact time' correspondingly longer, at low water temperatures,

For the other two types of pollutionchemical and particulate-filtering the contaminated water is the best method.

Again, a number of systems are available. Some are designed for use by car campers. anglers and others who can take vehicles to their campsites; they are too large and heavy to be useful to walkers. However, others now on the market are small and light enough to consider taking on day walks or multi-day trips. The lightest are those based on drinkingstraws, such as the AccuFilter water-purifying straw. Others incorporate a hand-pump mechanism

The best of these filtering systems can treat both chemical and particulate contamination as well as some types of bacterial pollution. They use two different principles. Particulates and micro-organisms are removed physically as the contaminated water passes through the pores of a very fine mesh. Chemical contaminants, which are about the same size as the water molecules themselves, are removed by an adsorption process in which the unwanted ions or molecules are attracted to and bound by the matrix of the filter (usually 'activated carbon'). This implies that these filtering systems can treat only a limited amount of chemically contaminated water.

One of the most sophisticated filtering systems made specifically for walkers and others active outdoors is the MSR Water-Works. Manufactured by the company that produces the well-known MSR stoves, it has been designed and constructed to the same high standards

The WaterWorks is not a single filter but rather a system containing a number of elements. A membrane filter removes particulates and micro-organisms greater than 0.1 microns in size. This means that giardia, algae, bacteria and fungi are removed, but some viruses are not. Most viruses in water are found attached to larger organisms or dirt particles and are filtered out with these carriers. A second filter of activated carbon removes many chemical contaminants, including most agricultural and industrial chemicals.

The filtering elements can be cleaned, and replacement membrane filters, carbon cartridges, and a maintenance kit are available. A clever feature of the WaterWorks is that its outlet port can be screwed directly on to a Nalgene one litre wide-mouthed water bottle or on to a water bag of 2-10 litres' capacity called a 'Dromedary Bag

Systems as complicated as the WaterWorks require careful maintenance. The filter should not be stored for more than a few days without thorough drying as otherwise micro-organisms could begin to grow on a damp filter element. Also, the carbon cartridge can become saturated. If this should happen, the

Water purifiers and filters

Tons of contrasted on

	system		treate	d consument	Teste		mirutes.	life, years	cost, \$	cost/ire, \$
Coglan's Tablets Canada Tablets		Becteriel		Mild hale	ie 10		3	950 teblets	0.18	
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Wicropur Switzerland	Tablets		Bacte	enel	None	120		10	23/100 tablets	0.23
Puritabs USA	Tablets		Becte	mal	Strong h	skde 10		5	8/36 tablets	0.22
Filters										
	Type of system	Type of contamina- tion treeled	Testo	weight,	Approx fit- retion rate, litres/minute	Approx life of element, litres	Approx cost, \$	Approx cost o replacement element, \$	costi	
Acculiter USA	Filter straw	Particulate/ chemical	None	30	na	75	35	35	0.47	0.47
Katadyn Swizerlend Pocket Filter	Filter	Particulate/ bacterial *	None	620	0.75	3000- 18 000	429	257	0.43	0.04
MSR USA WaterWorks	Filter	Particulate/ chemicel/ becterial*	None	480	0 67	100-200	295	65	0.56	0.35
PUR USA Traveller	Filter/lodine- based resin	Particulate/ bacterial	Mid halide	340	0 36	400	169	50	0.24	0.14
Scout	As above	Particulate/ bacterial \$	Mid helde	340	0 50	750	179	60	0.20	0.09
Explorer	As ebove	Particulate/ bacterial \$	Mid helde	595	1 00	2000	370	70	0.37	0.07
WeeserFix Germany	_									

na information not evaluable. " In these cases 'backenal' does not include viruses; water may be treated chemically to counteract viruses rate variable; figure given is for best results can be fitted with an optional carbon cartrid ri is torbost results ional carbon certridge which removes some chemicals, including most pesticides end herboider





Steeled for action on the move. SIGG's ingenious Traveller Cookset weighs just 1.13 kg and is only 10 cm high. You'd never think it contained an efficient spirit burner, two pans and a lid/frying pan. Plus a double wind screen for all-weather protection. This tough special-steel set is already a classic with hard-boiled travelers. SIGG — hot stuff on the road.

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system could pass chemical contaminants or even release some that had been adsorbed, and the result might be water worse than the raw water being treated. A ceramic filter element for the WaterWorks is 'in the pipeline'.

Katalyn is a company that specializes in industrial filters, but produces a small pocket' filter suitable for use outdoors. It is based on a 0.2 micron ceramic filter which removes most bacterial contaminants and features a self-aterilization mechanism which minimizes the possibility of reinfection from a damp filter element. The Katalyn filter does not include an adsorption system for removing chemicals. A new lightweight filter from Katalyn—the Mini Filter, weighing 250 grams and based on filter—will be available in Australia soon.

A recent entry to the Australian sool.

A recent entry to the Australian market is the Put series of water-purifying systems, the put of the Australian market is the Put series of water-purifying systems, the put of the Australian series of the A

The Pur Scout, perhaps the most appropriate of the three Pur models for the Australian bush, is easy both to use and to clean. A coarse filter on the inlet hose removes many large particles and greatly increases the life of the other components.

It is sad, but a fact, that Australians must now become increasingly aware of water pollution in the bush and of the methods needed to counteract it. In addition to looking after our own health, however, we should also look to the future by demanding that today's pollution be cleaned up and by learning how not to foul water supplies ourselves.

Will Steffen

Wild Gear Survey

There was a major omission from the Gear Survey of rucksacks for bushwalking in Wild no 46. The following paragraph should have been included among those provided by the manufacturers and suppliers of rucksacks in the body of the survey. The error was made by Wild during editing.

Outgear Australia

About hen years ago Outgear began making items of outdoor equipment that were unavailable on the local market. Our basic tentes have always been that items we make will be 'bombproof', functional—and, lastly, easthetically pleasing. We have built a reputation for designing and manufacturing ruckascks because that's about all we do. We haven't achieved this reputation by copying other people's mistakes but by designing from first principles—that is, by designing, making and testing from scratch until we get it right. We believe that if a ruckasck lasts under Australian conditions it will last anywhere,

and this is borne out by our success in exporting to other countries. We think you exporting to other countries. We think you should buy our packs, not because they're made in Australia (although they are) to because they are the best. That's why we are not afraid to give a lifetime guarantee. We are selling you a rucksack, not an experience; that, you have to eo and set yourself.

CANOES AND KAYAKS

Shimmering

The Mirage 17 and 22 sea kayaks were included in the Gear Survey in Wild no 42. Now there is a Mirage 19, a 19-foot boat recommended for weekend or expedition use. It has three hatches, one of them set to one side behind the cockpit for access when affloat, and

full-length dome, again with two poles. Netting hangs loosely right down to ground level on all three models; none, however, has a groundsheet attached. Consequently, flying insects will be kept at bay but persistent crawlers will still find a way in. Weights of the three models range from 280 to 990 grams; they sell for RRP \$49.95, \$69.95 and \$99.50. Distributed by Johnson Camping.

SLEEPING-BAGS AND ACCESSORIES

Show bags

Several of the sleeping-bags listed in the Gear Survey in this issue are either new or have been revised in some way. J&H's Winter-lite and Snobag models have redesigned, headhugeing hoods and correspondingly smaller



The new Mirage 19 sea kayak.

all set flush with the deck to minimize wind drag. It has a foot-operated rudder of large surface area built into the hull, and comes equipped with deck-lines and a compass—but without a pump—for RRP \$1800. From Canoe Specialists, Mosman, New South Wales.

TENTS

Bath crystals?

Euroda! has a new pair of tents for three-season use. The Prism and the Taringon sleep two and three people, respectively, and weigh 27 and 37 kilograms. Each is supported by two fibreglass poles which arch ever the middle of the tent, and has a fly with two awnings which give some protection to the doorways but of our deterder to the ground, doorways but of our deterder to the ground, for RRF \$275\$. They are distributed by Johnson Camming.

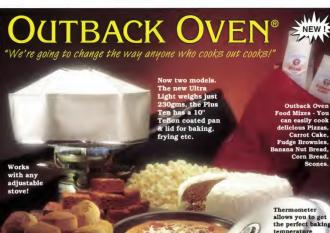
Buzz off

StepScreens are small, light tents—made entirely of "no-see-um' netting—which are designed to give protection from insects when there is no need for protection from the weather. The two smaller sizes, for one at two people, respectively, enclose the upper body of the occupant(s) in a dome supported by two fibreglass poles and cover the rest of the body with a loose flap of netting. A larger model, the Topic's Zeen, sleeps two in a simple,

openings at the shoulders, all made to keep warmth in. In addition, the Winter-like can now be bought with elastic thread throughout the inner shell, which gathers the bag in around the occupant and eliminates a good deal of the space in which air could otherwise the particular of the could obtain a shell of the particular of the part

Kathmanda shops have two new down-filled bags which are not listed in the survey. The Fantail has 300 grams of down, all in the top panels, and a sleeve beneath for a sleeping-mat. It weight 850 grams in total and selfs for RRF 1859. The Columbia contains 750 grams of walking in mild to cool conditions. Weight is 13 kilograms, RRF 2859, or 2859 for a large version. Kathmandu also has a new synthetic-filled bag somewhat warmer than its well-known Bushwhacker model—for two to three seesons' use. The Golder Touter has a third layer escensor use. The Golder Touter has a third layer to the standard of the Standard Standar

Steeping-mat sleeves must be all the rage. Mont is soon to release three bags with all the filling on top and a sleeve in the base for a sleeping-mat. The Micro, Voyager and Ulysses will contain 250, 400 and 550 grams of down, respectively.







CLOTHING AND FOOTWEAR

The long and the short

I&H recently brought out several new Gore-Tex jackets. The Bullfrog is a mediumlength jacket with a fold-away hood, RRP \$367. The Bushwalker is extra long—to keep shorts dry-and comes in green. RRP \$366. The Mirage is tailored for women, with a higher waist and shorter sleeves than most jackets, RRP \$339. The Ultra Cane Toad is made of lightweight, three-layer ripstop Gore-Tex and weighs 520 grams (size L). RRP \$362, and \$194 for pants in the same fabric. The Expresso and the Easy Rider have shoulders and upper sleeves made of three-layer Gore-Tex and use two-layer Gore-Tex, which breathes better but is less durable, elsewhere. The Expresso is an anorak; the Easy Rider is a jacket with a full-length zip. Both are cut quite short and are lined with a breathable mesh. RRP \$349.50 and

\$399, respectively. And the Chute Out is a lightweight anorak with a tuck-away hood, made of mesh-lined, two-layer Gore-Tex. RRP \$332.50.

Winged feet

Red Wing Irish Setter boots are made in the U.S.A. for walking and working in cold conditions. The model 810 has a full-grain suede upper lined with Cambrelle and Thinsulate, so would be cosy in winter and perhaps rather too cosy for summer bushwalking in much of Australia. It is conventionally styled and finished to a high standard. The urethane sole has a shallow lug pattern. RRP \$245. From Red Wings International, Melbourne. Victoria.

Flip without flop

There's another new kid on the block in sport-sandal land. Oxy, made in the USA, is a new brand of rubber-soled 'off-road' sandals; the Kudo model has four straps of nylon webbing, all adjustable with Velcro. A pair of size 9 weighs 500 grams, and the sandals sell for around \$75. Distributed by Spelean.

MISCELLANEOUS

The incredible shrinking kitchen

There's a new, lightweight version of the Outlack Oren (see Equipment, Wild no 43) which does away with the Teflon-coated pan of the original and lets you bake in any pot or billy of 15 to 24 centimetre diameter and between 7 and 12 centimetres high. The Outlack Oren Ultra-Light consists of a reflector, a heart-fill(sizing plate, a pot support, a thermometer, and a collapsible cover to keep the hot as in no mound the pot. It weighs 270 grams and at no nound the pot. It weighs 270 grams and a distance with adjustable heat. Around \$45. Distributed by Selean.

Accessories available for Outback Ovens include cutting-boards, a wooden spatula, and non-stick 'Quick Release Sheets' with which to line your billy. There's also a new range of ready-mixed foods for baking in the bush—pizza, scones, banana nut bread and carrot cake, to name a few. Hands up all those who remember damper.

Petzl logic

The latest in the Petzl line of headlamps, the Chrono, has the same weather-resistant, adjustable-focus lamp unit as the Zoom model, and a quartz-halogen bulb. Its battery pack is a padded pouch secured in the middle of the back-not the ideal spot if carrying a rucksack but okay if travelling light-with a somewhat fiddly elastic harness. It could also be worn on the chest. The Chrono is designed for orienteers and joggers. A battery carried close to the body will stay warm and hence in really cold conditions work better, and for longer, than one carried outside, but the same effect can be achieved by other, less elaborate means. Petzl's Kanga Pouch, for example, hangs around the neck and carries the battery of a Zoom headlamp. Like the Chrono battery, this is a 4.5 volt cell connected to the lamp by a flexible lead. The Chrono sells for RRP \$91, the Kanga Pouch for RRP \$38. Both are imported from France by Spelean.

Walking-sticks Mountaineers do it; back-country skiers do it; now even educated bushwalkers do it. Cross-country ski poles make great walkingsticks, and their use is spreading fast. In Europe, where the ski pole is a natural successor to the alpenstock, some ski-pole manufacturers have given up winter production in order to cater for the increasing summer demand. Extendible poles with cross-country grips, including straps, and tipped with either rubber or tungsten seem to be the preferred variety, but poles of most kinds can be used. The German outdoor magazine Bergwelt conducted tests using poles fitted with pressure-sensitive counters and came up with impressive figures for the size of the load which could be diverted from the legs and lower back by the use of ski poles during walks. Australia imports most of its ski poles but one manufacturer here produces poles in aluminium alloy, including

TRIX

The chippie

A low-impact variation on the cooking-fire, by Steven Robinson

Firewood can be scarce around popular campsites, and ugly fire scars are unwelcome anywhere. A chip stove can help to reduce these problems. It can cook a full meal for four with only a handful of twigs for fuel because it concentrates the heat where it is needed and provides efficient burning conditions. It barely marks the spot where it has been used, yet is far lighter than a fuel stove and fuel. It is cheap, easy to make and to use, and can be fitted inside a big billy soit takes up little or no extra room in the pack.

The basic idea is old and simple: take a large tin; drill or punch lots of holes around the bottom and top to let air in and burning gases out; and add an opening near the bottom through which to feed in twigs. A couple of bent bits of fencing wire or thick coat-hanger wire through the top holes support smaller billies. Lift these wires out, and smaller billies can be stored inside. The exact dimensions are not important but the chippie should be taller than its diameter to get a good draught, and the air holes need to be fairly large-15-30 millimetres in diameter. Excellent chippies can be made from old paint tins or large fruit tins

My present chippie is made of aluminium sheet, with a base, also of aluminium, por-iveded in place. It is very light and fits between the largest and second-largest of a nesting set of a lesting set of a lestin

throughout the year, resting it on a bare patch of ground or on a rock. If you carefully feed twigs in as they burn, not a mark is made, and when thoroughly extinguished, the finy amount of ash the stove produces can be carried out or scattered so that no evidence remains. We even take it ski touring below the tree line. A fuel stove is still necessary, but we only take fuel for essential cooking and use the chippie for luxuries such as a hot drink with lunch. It works happily sitting on a couple of twigs on the snow. Face the door into the wind for maximum heat.

Wild welcomes readers' contributions to this section Send your ideas to the address at the end of this department.





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Dan shows off the Outdoor Leader First Aid Bum Bag-contents not included

are held in place with adjustable straps and in clear pockets, and a zipped, outer pocket holds a small first aid manual. The bag can be unfolded while being worn for emergency access in tricky situations. Empty, it weighs 350 grams. RRP \$105, or \$95 as a pouch without a waist-belt, from most Mountain Designs shops.

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New products (on loan to Wild) and/or information about them, including colour slides, are welcome for possible review in this department. Written items should be typed, include recommended retail prices and preferably not expect 200 words. Send to the Editor, Wild, PO Box 415, PRAIran, Victoria 3181.



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LILDERNESS CALENDARS, DIARIES AND CARDS

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(Wildemess Society, RRP \$14.95).
Tasmanian Wilderness Calendar
(Peter Dombrowskis, RRP \$14.95).
The Wilderness of
New South Wales 1993
(Robert Rankin, RRP \$11.95).
Wild Places of Australia 1993
(Robert Rankin, RRP \$11.95).
Wilderness Australia 1993
(Robert Rankin, RRP \$11.95).
Wilderness Queensland 1993
(Robert Rankin, RRP \$11.95).
Wilderness Queensland 1993
(Robert Rankin, RRP \$11.95).
Wilderness Queensland 1993
(Robert Rankin, RRP \$11.95).

Australian Wildlife Calendar 1993

Landscape Calendar 1993 (Wilderness Society, RRP \$14.95). Wilderness Tasmania 1993 (Rob Blakers, RRP \$8.95). Wilderness Victoria 1993 (Robert Rankin, RRP \$11.95).

Both calendars published by the Wilderness Society are high-standard productions. One must also appland the society for taking the lead in this field and printing its calendars on low-chlorine paper (the paper is not as glossy as that used in other calendars). A number of photographers have contributed pictures to both calendars and their quality is generally some contributed of the production of the same time support the conservation movement, have as ericus look at these.

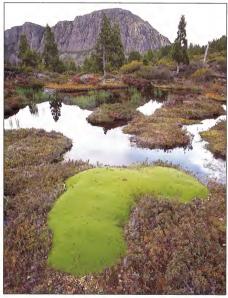
Tasmanian Wilderness Calendar is, like all past efforts, a fine piece of work. Many of Dombrovskis's photos are of the popular Walls of Jerusalem and Cradle Mountain area, but some are from lesser known areas such as the Tarkine wilderness in the State's northwest.

Not much can be said of Robert Rankin's calendars that hasn't been said before. He's again produced the same bunch of calendars (with different photos of course) and, as usual, reproduction quality is excellent. Whilst no one photograph stands out as being 'the one', all calendars are very good, of about equal quality and definitely worth more than a cursory look.

If you find most calendars too large, Wilderness Tasmania is the perfect choice. All the photos in this rather small calendar have been reproduced well (better than in last year's calendar) and the pictures are pleasing. Glenn van der Knifff

Natural Australia Desk Diary 1993 (Australian Conservation Foundation, RRP \$29.95).

1993 Wilderness Diary (Peter Dombrovskis, RRP \$19.95).



Tarn below the West Wall, Walls of Jerusalem National Park. Photo by Peter Dombrovskis, reproduced from the 1993 Tasmanian Wilderness Calendar.

Wilderness Diary 1993 (Australian Conservation Foundation, RRP \$18.95). Wilderness of Australia Diary 1993

(Robert Rankin, RRP \$13.95).

As in previous years, the Australian Conservation Foundation is helping to promote up-and-coming photographers. Both diaries contain contributions from a number of photographers, and the quality and reproduction are good. Natural Australia is also printed on 100 per cent recycled paper and has been bound in a more conventional manner this year. As usual, these dairies will be popular with those buyers who especially

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like to support the conservation movement in Australia.

Master wilderness photographer of Tasmania, Peter Dombrovskis, has produced another fine diary. Tasmania probably has the most scenic 'wilderness' in Australia and Dombrovskis does an excellent job of recording it on film in such publications, which are also particularly well designed.

Robert Rankin's Wilderness Diary is, again, excellent. Whilst I think that last year's photos were better, this diary is highly recommended for the quality of its production and it is a good buy.

The Unique Continent: An Introductory Reader

in Australian Environmental Studies edited by Jeremy Smith (University of

Queensland Press, 1992, RRP \$14.95) Early European explorers ventured into the centre of Australia convinced that they would find an inland sea. They were on the right track, but far too late. Twenty thousand years ago lakes like Mungo and Calabonna were huge, thriving water bodies teeming with fish and birds. Giant marsupials like diprotodon lived along the shores of these lakes, and were hunted by Aborigines, At this time Australia had a group of birds called the mirihungs, all of them larger than the modern emu; the largest, the dromornis, was the largest bird which ever lived, weighing in at about 460 kilograms. Although now extinct, these birds seem to have inspired some Aboriginal rock art which still survives. Today the lakes have dried up, and even Lake Eyre, which drains one sixth of Australia and is 15 metres below sea level, fills with water only occasionally.

Fascinating details like these are on every page of The Unitage Continent. For example, the earliest life forms on earth were single-celled bacteria and blue-green algae, emerging in the shallow waters of the earth some 3.5 billion years ago. Some communities of these organisms formed semi-submerged mounds called stromatolities, and similar structures still exist in the saline waters of Shark Bay. Other early life forms increased the volume of oxygen in the sea waters, causing the iron oxygen in the sea waters, causing the iron expensive the control of th

Described as 'an introductory reader in Australian environmental studies', The Unique Continent will appeal to a wide audience.

Amongst the topics covered are the development of the Great Barrier Reef, the evolution of Australian flora and wildlife, Aborigines and the environment (including discussion of the pre-European population of Australia), present environmental issues such as the spread of Minosa pigra in northern Australia and the spread of the spread of the red fox.

David Mercer's paper on 'Conflicting Ideologies' in the debate on the Australian environment is particularly discerning and provides a good starting point for understanding many of the underlying philosophical tensions when these issues are discussed.

The material covers a wide range, but is not exhaustive. Issues of agriculture and mining

are discussed, but forestry is only mentioned in passing

The book is easy to read, and some of the papers are scripts for an ABC television programme yet to be screened.

The lack of an index is unfortunate.

The Unique Continent will be invaluable to anyone seeking some informed background on Australia's environment.

Brian Walters

Use With Care: Managing Australia's Natural Resources in the Twenty-first Century

by Doug Cocks (New South Wales University Press, 1992, RRP \$29,95).

Australia's resources are limited, and many people want to use them. Some uses will be wise; others will have few long-term benefits for the country and its inhabitants. Doug Cocks aims to help us to decide which uses

will be worth while.

The title of Cocks's book serves to remind us that environmental problems are not confined to the present. The management of natural resources needs the perspective of time, lest the seduction of short-term gain detract from long-term benefit.

defract from long-term benefit.

Cocks works for the CSIRO and has had

Cocks works for the CSIRO and has had

many years' experience in dealing with land
care issues from various points of view. Use

With Care is a resource manual in format, not

so much laying down answers as providing

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will be of value for long-term reference for

conservations is, and others.

I did not always agree with the way Cocks has drawn the boundary lines for discussion. Sometimes he seems too ready to take a middle course, to compromise, rather than step back and select the best option for Australia. For example, he seems to support the idea of resource security for the timber industry: The industry needs and deserves firm guarantees about the availability of its feedstock.' No justification is given for this assertion, and many would disagree with it. The industry does not own native forests, and if it has not made the necessary long-term investment to establish plantations which it can rely upon, why should the Australian public commit itself to guarantees to supply that timber from native forests-especially since it effectively subsidizes the logging of native forests?

In fact, whilst there is some good source material in relation to the forest industry, its analysis is generally inadequate. Codes demonstrates that some large profits are made by off-shore woodchippers, but he does not mention that royalites for the logging of native forrests fall short of the actual cost to the tax-payer, to the extent of many millions of dollars the Australian public finances large oversees profits from the destruction of native forests. There is nothing on the expansion in the annual cut of timber. The reason for the decline in employment from logging (greater capital intensity) is not setled out.

The suggestion that regrowth forests might be managed intensively (that is, with heavy use of fertilizer and weed control to give maximum yield) is startling. Many other issues are dealt with thoroughly, including population control, patterns of current land use, and technology.

One of the strength of the with Care is that it provides information in an accessible way on a range of topics examined. It will be particularly helpful to students.

Doug Cocks's book records his experience on a variety of issues and, provided readers are confident enough to reach their own conclusions, it will be a valuable reference.

The State of the World's Mountains: A Global Report

edited by Peter Stone (Zed Books, 1992,

RRP \$25 [paperback], \$60 [hardback]). Mountain areas have fragile ecosystem

Mountain areas have fragile ecosystems, and these are showing increasing signs of crisis around the world.

Mountains are important. They provide a vertical archipelago of refuge for biodiversity. The likely advent of global warming will increase their importance as species will need to be free to migrate to cooler regions if they are to withstand the increased pressures of changes in climate. Where there has been overexploitation of these regions, the possibility of this movement is reduce-

The State of the World's Mountains catalogues a remarkable series of threats to the world's mountains. The beautifully engineered roads in the European Alps have attracted so many cars that the resulting pollution is killing off the adjacent forests, in turn increasing avalanche and landslide activity, and flooding the valleys. In the Himalayas the humble search for firewood is denuding the slopes with similar dire consequences. As a result of the destruction of traditional modes of agriculture in the Andes, many areas which used to support large populations in comfort now have far smaller populations living in poverty. Mass tourism is creating pressures on hitherto wild mountain regions which lead to enormous damage.

Mountains can provide indications of climate change, the retreat of glaciers showing the impact of global warming. They have long been sources of human inspiration: they are wild and remote and their size seems to dwarf human activity and place it in perspective. That image is threatened around the world, and the need to work for the protection of mountains is pressing.

Australian readers may question the global character of this report. Our mountains are not mentioned; nor are those of New Zealand, There is no reference to the enormous Antarctic ranges. Much of the book is quite technical and will be of most interest to specialists in the issues of geography discussed.

discussed. RW

Secrets of the Scenic Rim

Book and video by Robert Rankin (Rankin Publishers, 1992, RRP \$35.00).

Different people look for different things in a bushwalking guidebook. I think a good guide should provide a concise overview of the walk, tell you how to get to the start, briefly describe the route and note the difficult bits, include accurate maps, be lightweight and small enough to fit in a pocket.





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ZEN IMPORTS PTY. LTD. P.O. BOX 201, ROZELLE NSW 2039 FAX: (02) 810 8776 PHONE: (02) 818 1955 Robert Rankin's Secrets of the Scenic Rimmets most of these criteria. Because this book concentrates mainly on the Scenic Rim traverse, it is half the weight of its competitor, the Buchanans' Businsulking in South-east Queensland. Although Rankin's book has no unnecessary chapters on how to bushwalk, it does include a lengthy history of bushwalking in the area so that walkers will have something to read when they are marking time.

Rankin's colour maps are excellent and complement his descriptions—which are good but not always comprehensive. In several locations, such as Double Peak and Mt Humley, there are alternative ways round the difficult spots that go unmentioned.

Rankin also describes a number of rockclimbs. Some are already covered in guides to Frog Buttress and Kangaroo Point. Other climbs at Mt Barney, Mt Maroon and Girraween are less well known and are useful inclusions

His bushwalking grades are conservative in a consistent fashion. They are undeabtedly framed with the inexperienced walker in mind. He recommends the use of a rope on many routes which confident and competent rock-scramblers would negotiate without hesitation. People who have climbed Federation Peek in South-west Tasmania without a rope would only need one to climb M Indiesay and for trips which involve abesits, includesay and for trips which involve abesits, because the property of their walks might require a pack-hauling line if done with a heavy pack.

neavy pack.

The feature that distinguishes Secrets of the Scenic Rim from other bushwalking guides is a video cassette containing two programmes.

The first is a short, evocative motion picture covering the changing moods of the Scenic Rim, from sunrise to sunset. Here Rankin uses some interesting cinematic techniques to good effect.

The second is a series of stills from the Rankin collection with a supporting sound-track. As you would expect, the shots are excellent, but some flash by too quickly and the lightning shots are a bit corny.

The video is more notable for its hyperbole than for the information it imparts. Since it comes with a guidebook, I would have preferred it to cover the Scenic Rim traverse. As it stands, it will probably appeal most to people who have never set foot in the area.

This innovative combination of guidebook and audio-visual presentation costs \$35. That's a high price if you are only interested in the guidebook, but a fair one for the package. I would recommend that anyone interested in the Scenic Rim have a look at it. Laurence Knight

Laurence Knight

Grant's Guide to the Flinders Ranges by Grant Da Costa (Acacia Vines, 1992, RRP 514.95 plus \$0.85 for postage and packaging, from the author, PO Box 267, Gembrook, Vic 3783).

With the continuing spread of desk-top publishing, we can probably expect a lot more booklets like this one. Grant's Guide is essentially a collection of travel advice, scenic highlights and suggested bushwalks in the Flinders Ranges. One advantage of this style of other probabilities of the style of other probabilities of the style of other probabilities. The precision of the style of other probabilities of the style of other probabilities of the style of other probabilities.

general book trade can be circulated to a limited but enthusiastic audience.

The areas included in this guide are treated in a systematic and informative way. The layout is easy to follow. Area introductions and track notes are written in a clear, breezy style. Each section is garnished with maps though the graphics often struggle to compete the nature of the landforms. A few strong photographs would certainly help.

The back-cover blurb boasts that this guide covers the best there is to see from the very south to the very north. The preface is a little more circumspect and suggests that what is on offer is a 'selection of the best walks and tours'. Yet even judged by this more modest claim the guide skimps on information about some prime locales.

For example, whilst the notes give options for exploring Wilpena Pound, there is no mention of the many fine walks in the adjacent Heysen or Elder Ranges. Similarly, to find little detail about the spectacular drives through Bunyrevo Xilley and Brachina Gorge is surprising in a guide catering to the car tourer. Key towns such as Quora and Hawker, and other accessible spots like Telowie Corge in the 'very south,' are also largely ignored.

in the very south, are also largely ignored.

By contrast, the coverage of the northern
Flinders is far more comprehensive. For
anyone planning a visit to the country in and
around the Gammons, Arkaroola and Freeling
Heights, the guide outlines a varied mix of
possible walks and drives. The author's
knowledge of these far-flung ranges and his
enthusiasm for the terrain shine through.

The preface to Grant's Guide talks of reader feedback and of 'registered users' receiving future 'upgrades'. In its present form this booklet is friendly enough to use but lacks breadth and visual appeal. Those travelling to the central Flinders, in particular, would be wise to wait for a major upgrade.

Quentin Chester

Himalayan Climber

by Doug Scott (Diadem, 1992, RRP \$49.95).

The second in a series of planned photographic autobiographies of the world's greatest mountaineers, Himalayan Climber is up to the high standard of the first, Mountaineer by Chris Bonington. (See review in Rock no 15.) And like Mountaineer, mountaineering aficionados simply cannot afford to miss this one, notwithstanding the hefty \$49.95 price tag (up from a reasonable \$29.95 for Bonington's thicker book released only two recessionary years earlier!). It's all there: from Scott's earliest weekend forays on to the British outcrops, to first climbs in the European Alps and more exotic locations further afield in north Africa, Turkey, the Hindu Kush and beyond-in a magnificently produced large-format book with outstanding colour photography in which the personal, cultural and aesthetic, as well as the technical, aspects of mountaineering are well covered.

The thing that strikes you about Scott is his massive energy for climbing over a long time and the staggering range of his mountain experience. Scott is best known for his more recent big Himalayan climba, starting with the first ascent of the South-west Face of Mt Everest in 1975. However, there are many faschiating accounts of other types of climbing.

in Himalayan Climber: big walls in Norway, Yosemite, the Dolomites and Baffin Island; mountain forays in north America; technical climbs on 'lesser' Himalayan peaks, including his famous epic on the Ogre; and rockclimbing from Jordan to Australia (which he has visited a number of times on lecture tours).

The relatively brief text is well written, interesting and touchingly modest. And despite one or two minor errors in photo captions describing Australian climbs, there are no obvious gremlins in the works.

Chris Baxter

des most as a market and

The Darkness Beckons-The History and Development of Cave Diving

by Martyn Farr (Diadem,

revised edition 1991, RRP \$59.95).

The first edition of this fabulous book was published in 1980 and I read it in a day, unable to put it down. It was reminiscent of The White Spider, every chapter a nall-biting epic. Cave diving, it seems, evolved along the same trial-and-error path by which the North Wall of the Eiger was first climbed—and with a similar rate of attrition.

For most people the thought of caving exploring without light—is bad enough, but cave diving—without air—no, thank you! To be sure, cave divings some of the riskest sports imaginable, yet, as the title of this book suggests, it is the natural progression from ordinary cave exploration. This point is well liststeaded in the foreword by fill Stone, who liststead in the foreword by fill Stone, who diving was the result of seeing Stotano di San Augustin, a wonderful cave, end in a clear, blue pool, with the passage obviously continuing beneath the surface.

Martyn Farr grew up caving in Britain, where nearly every scrap of cave had been trogged to death and where new discoveriesevery caver's dream-were a rarity. Most of the caves scattered throughout the country ended in sumps and it was therefore only natural to go one step beyond and enter the underwater world. He was not the first: his predecessors were either his mentors or were dead. Their stories and the lessons they had learned provided the basis for his first book. Oxygen poisoning, dive-lining and 'the rule of thirds' were all discovered by trial and error. Farr uses the history of British cave diving as a microcosm for the development of the sport as a whole

This second edition is much more intenational than the first. Australia is well represented-Codebiddy still holds the record for the control of the decade with the sport both in Brital and elegody with the sport both in Brital and elegody with the sport both in Brital and elegody with the work of the throads of this development together. Inclinax of the first edition was the 300 meter chimac of the first edition was the Novi hadron five from Kingdale Master cave to Keld Hold, which was shown five on Vorkshire Television in a show entitled 'The Underground Fiere'.

Farr did not take part in that dive but he already had many records to his credit. He became interested in the long penetrations of drowned cave systems in the Caribbean. ('Deep into the Blue Holes' was screened on Australian television.) At the cutting edge of cave drying were longer and deeper dives. The soort flitted around the world: to the



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Nullarbor in search of length; to Florida; and to Mexico, which eventually yielded a record depth on scuba of -267 metres. The world record depth as 351 metres, by a professional oil-rig diver supported by an air bell.) The Duriness Beckows keeps pace with these feats and with the extraordinary technological ricks and developments—Firmis, Scotters promises the proposible. Bill Stone's rebreather promises to possible. Bill Stone's rebreather promises to open the next horizon.

open time the charge of the human Mor does this book neglect the human dimension. There are stories of tragedy, of lucky escapes, of people who defied panic under conditions of extreme stress. There are the divers who counted down an hour by sevents on a decompression stop because who have the counter of the counter of gauge the diver what can that the counter gauge the diver what can that the gauge the diver what can then the gauge the diver what can the counter of or worse still one whose scooter broke down at a depth of 75 metres and a distance of 1024 metres from the shaft which led to the surface—at that depth a tank of gas lasts nine broatly.

The whole book is none the less understated far is modest Heevidently has nerves of steel, but he plays down his own achievements. I was lucky enough to meet him in Wales, and remember it well. We were carrying gear into Dan yr Ogof for a dive and as I struggled to push a tank ahead of me through a long squeeze, he told me matterof-factly that the passage we were in had first been explored on scubs and had since been

sylvinears for has now probably discovered have yet passages than any other British cover and he still seems to be driven by the question: What is on the other side of that sump? He is not averse to exploring dry passages, nor to climbing avens. He is something of a celebrity in Britain. When he lectured at the British Mountaineering Council's conference on risk, most of the Himalayan Chimber present—including big names—concluded that their sport looks like a Sunday-school princil by comparison."

It is remarkable that Martyn Farr has survived for so long, he seems to have had more lives than a cat. No other cave diver is as well qualified to write such a book. Whether you cave or dive, climb or just sit on the couch, if you enjoy books such as Joe Simpson's Touching the Void, you'll love every chapter of The Darkness Beckons.

Stephen Bunton

Nature of Australia by John van den Beld

(Australian Broadcasting Corporation, second edition 1992, RRP \$39.95).

A few years ago the ABC screened an enormously popular natural history series celebrating the diversity of life and adaptation in Australia. Alocal rival to the films of David Attenborough, it demonstrated that we have both a deep understanding of our natural systems and the cinematic talent to translate that knowledge for public appreciation. Van den Beld directed that programme and wrote the accompanying book.

Biological research does not stand still, however, and more research is probably being carried out on Australian ecosystems today than ever before. This latest edition, therefore, adds much to the original programme. It conveys how Australia is different from other continents and why we have animals and plants that seem so strange to foreigners.

More celebration than critique, discussing only briefly the environmental changes that have occurred since European settlement, it is studded with the strange characters that make up our bida. Descriptions long enough to be informative, short enough to be enticing. I long to meet the Lake Eyre dragon at home and would love to see a wovile hunting fund.

Pictures, too, aim to inform the text rather than upstage it. The book is well worth reading though it will have to be updated at least every five years to keep up with our productive biologists.

Stephen Garnett

Our Rainforests and the Issues

by Beryl Morris, Tony Sadler and Graham Harrington

(CSIRO Australia, 1992, RRP \$14.95).

Understanding the important ecosystems of rain forests is a prerequisite for recognizing the need to preserve the world's remaining ones. Our Rainforests and the Issues provides the opportunity to develop these concepts. It is a most valuable activity book, aimed at 11–16-year-olds, filled with engaging handson experiments (focused on the Australian rainforest) which will lead young people the constant of the control of the contro

Like Wild's cover, the book is produced (appropriately) on paper made of bagasse, the waste material left over from harvesting sugar cane. It is beautifully designed using excellent tables, graphs, maps, photos and drawings.

unite, graphs, maps, jiritus, and unavangasub-opics, (limitare, soils, plants), animals, interrelationships, cycles, disturbances, uses, conservation issues), are preceded by an information page and given a level of difficulty rating (low, middle, high). The book is not only a useful source of ideas and a valuable reference for teachers working with young people. The activities are exciting for all who enjoy learning through doing and who wish to gain a better knowledge of ratin forests and their importance, thus learning to evaluate critically the information, opinions and their importance of the conservation and use.

Sue Baxter

The Rainforest Legacy: Volume Two-Flora and Fauna of the Rainforests

edited by G Werren and AP Kershaw (Australian Government Publishing Service, 1992, RRP \$34.95).

It has taken far too long to recognize the diversity and international importance of Australia's rain forests. The symposium on which this book is based, held during 1983 in the days before World Heritage, helped to redress public ignorance and raise the profile of our rain forest to its current high level. The proceedings of that meeting, though dated, the proceedings of that meeting, though dated protected. For some of the frog species such an historical record is a poignant reminder of how fast things are changing; although how fast things are changing; although

protected, most of the montane rain-forest frog species have disappeared, and possibly become extinct, since the book was written.

It is not an easy text to read—some papers are more relevant than others—but anyone seriously interested in Australian rain forests will need a copy.

SG

Life on the Rocky Shores of South-Eastern Australia

by Gerry Quinn, Geoff Wescott and Russell Synnot (Victorian National Parks

Association, second edition 1992, RRP \$7.95).

Many of us have memories of childhood

Many of us have memories of childhood hours spent grabbing about for starfish and sea shells in rock pools by the sea, and will take our children to share the same experiences only to find that we have forgotten the names of the creatures which live there. Here is a good book which will help us to remember.

Small enough to be 'shirt-pocketable', Life on the Racky Shores covers nearly all the sorts of common plants and animals that casual visitors are likely to meet. The text is simple; and, though the black-and-white photographs are possible to the same possible some perfectly adequate for identification. In fact they make the loveliness of the living organism all the more exciting.

And because the book is so portable, the organisms can continue to live rather than become smelly, desiccated corpses beside some housebound reference book. Field guides such as this have been instrumental in changing the way we think about animals in the wild. Just as the collecting of birds' eggs has almost cossed, so too will shelf collecting disappear as we can more easily identify and apprectate organisms in their natural environment of the control of the contro

The first edition of this book went out of print; buy this one while you can.

Survival! Remote Area First Aid

by St John Ambulance Australia (St John Ambulance Australia, 1992, RRP \$24.95).

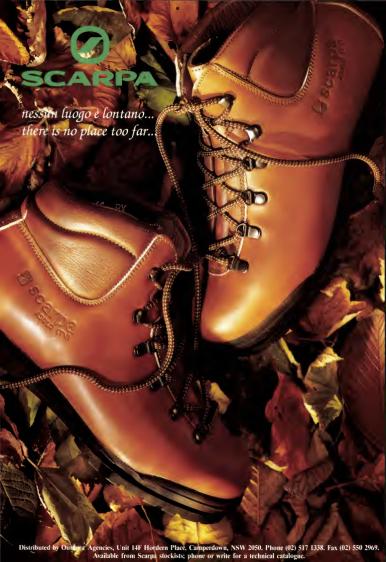
This book introduces car travellers to a simple, safe awareness of Australian outback travel. Due to their overwhelming importance, topics such as patient observations—monitoring and recording vital signs including fluid intake and output—and the decision-making process are welcome additions to an Australian manual.

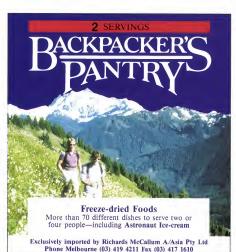
The chapter on the Royal Flying Doctor Service is excellent, as is the presentation of the sections on calling for help.

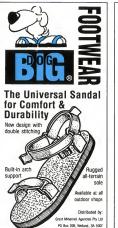
The part about colder climates is incomplete. There is no mention of anti-freeze or snow chains for vehicles, of how long it takes to build a snow cave, or what 'insulative materials' actually are—closed-cell foam mats. Therma-Rests and the like.

The focus on frost bite seems lengthy when frost nip is the real concern for back-country skiers in Australia. Near-drowning isn't covered, nor is overall wound management for prevention of infection.

This book doesn't profess to be a definitive guide and, as is clearly stated, it should be used with St John's urban manuals and travellers should complete a first aid course.







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- ARID ZONE, South Australia, April-May (21 days), an open-age, mixed
- expedition · WHALES & SAILS, August (21 days), open-age, mixed expedition to monitor southern right whales in the Great
- Australian Bight ALL-WOMEN expedition, Sept-Oct (21 days), to the desert wetlands of South Australia

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The Prince of Wales

It's a book for the glove box or for reference to good, basic information. Sue Ashe

Classic Wilderness of Australia

Christmas Cards (Robert Rankin, 1992, RRP \$11.95) for box of 14).

Wilderness of Australia

Christmas Cards (Robert Rankin, 1992, RRP \$9.95) for box of 15). Wildflowers of Australia

Christmas Cards (Estella Rankin, 1992, RRP \$11.95)

for box of 15)

Classic Wilderness and Wilderness are excellent prints of some of Robert Rankin's nicest images; Wilderness cards are slightly smaller in size but both are of high quality. Some of Estella Rankin's lovely water-colour paintings have again been reproduced in Wildflowers. Each card has brief information about the plant and, as is the case with Classic Wilderness and Wilderness, all cards come with midweight envelopes. Ğv

Other titles received

All Action Canoeing by Alan Fox (Wayland, 1992, RRP \$7.95). Argentina, Uruguay & Paraguay-A Travel Survival Kit

by Wayne Bernhardson and Maria Massolo (Lonely Planet, 1992, RRP \$22.95). Australia-A Travel Survival Kit by Tony Wheeler et al (Lonely Planet, sixth edition 1992, RRP \$29.95). **Brazil-A Travel Survival Kit** by Andrew Draffin, Robert Strauss and Deanna Swaney (Lonely Planet, second edition 1992, RRP \$24,95).

Butterflies and Moths hy David Carter

(Harper Collins, 1992, RRP \$29,95). Cambodia-A Travel Survival Kit by Daniel Robinson and Tony Wheeler (Lonely Planet, 1992, RRP \$16.95). Classic Climbs in the Caucasus

by Friedrich Bender (Diadem, 1992, RRP \$34.95). Eastern Alps: The Classic Routes on the Highest Peaks

by Dieter Seibert (Diadem, 1992, RRP \$34.95). Ecuador & the Galápagos Islands-A Travel Survival Kit

by Rob Rachowiecki (Lonely Planet, third edition 1992, RRP \$22.95). Indonesian Phrasebook

by Paul Woods, Kristiana Sarwo Rini and Margit Meinhold (Lonely Planet, second edition 1992, RRP \$7.95).

Iran-A Travel Survival Kit by David St Vincent (Lonely Planet, 1992, RRP \$19.95).

John Muir: The Eight Wilderness-Discovery Books (Diadem, 1992, RRP \$39.95). **Rocks and Minerals**

by Chris Pellant (Harper Collins, 1992, RRP \$29.95). Walking in the Dolomites by Gillian Price (Cicerone Press, 1992).

Publications for possible review are welcome. Send them to the Editor, Wild, PO Box 41S, Prahran, Victoria 3181.

OUR BAGS HAVE HIKERS TALKING, NOT CHATTERING.



The hottest news in sleeping bags is the extra warmth and comfort you get with new Quallofit 7 insulation. Because now, every microscopic fibre contains seven tiny holes that trap more air, and more warmth. Plus a special coating on the fibres means they never clump together the way down does. Like all three Dacron* insulations, Quallofit 7 is durable, non-allergenic and machine washable but most importantly, it keeps its warmth even when wet. So when you're buying a sleeping bag. remember that the best just got better, and look for the Dacron Quallofit 7 label. Then you'll pacron throw you can get a good night's sleep anywhere. Without being kept awake by chattering.

____EEDING FRENZY

Duck shooters open fire

Wild no 46 contained a propaganda leaflet aimed at the abolition of my favourite recreation, the hunting of my own food. Therefore I feel quite at ease in taking similar action against your magazine and have taken the following steps towards achieving this end.

1 Decided not to purchase any more copies of Wild magazine and to advise others to follow suit.

2 Written to the companies that advertise in Wild informing them that I will not purchase any of their products while they continue to advertise in your magazine.

3 Written an article that will be published in the next Field and Game magazine (9000 copies published) that explains your adverse propaganda and advises readers to take similar action to mine

4 Incorporated the above into my report which I will deliver to the next State Executive meeting and next State Conference of the Victorian Field and Game Association.

Should you make an editorial decision not to publish any further propaganda aimed at abolishing my right to hunt for my own food please let me know and I will publish your decision in our magazine.

Graham Ross
Education Officer
Victorian Field and Game Association
St Arnaud Vic

...The purpose of this letter is to inform you that as an advertiser in Wild your company and its products will be subject to...bans. These bans will stay in place until I receive an undertaking from you that you will no longer advertise in Wild or that I obtain an undertaking from the publishers of Wild that they will cease publishing anti-hunting propaganda.

Graham Ross Education Officer Victorian Field and Game Association St Arnaud, Vic

The above letter was sent to businesses advertising in Wild no 46. Editor

I purchase your magazine because of its excellent articles on the outdoors and outdoors equipment. (I am especially interested in minimal impact walking.) Articles such as walking in Papua New Guinea are the reason I purchase Wild. Do you realize that a large number of hunters and fishermen also read number of whotes and fishermen also read

I wish to complain about the misinformation spread by the Coalition Against Duck Shooting (CADS). I recently checked the figures quoted in the rather emotional post-card advertisement about duck hunting circulated in Wild to 46.

The figures quoted of hunters dumping 200-300 tonnes of lead shot into wetlands in Victoria each year are astounding—and incorrect. A quick check with the calculator showed that for 200 tonnes of lead shot to be fired by hunters into wellands, over 5.5 million shotgum cartridges would need to be used. (A 12—gauge cartridge has between 28 and 32 grams of lead shot in it.) This works out at the equivalent of two cartridges for every man, woman and child in Victoria (1996 population figures). The few thousand people hunting in Victoria would have to be very busy to fire that many cartridges.

The freckled duck is more common in its range in the western Coongi swamps. The availability of water is the freckled duck's main problem and the reason the population fluctuates between drought and plenty. Severe penalties exist for hunters who shoot this species. The introduction of the Waterfowl Identification Test (WIT) has weeded out the hunters who don't hunt ethically. The very few who hunt without a licence are breaking the law and are dealt with when apprehended. The Blue Cross also published figures to say that less than five freckled ducks were accidentally shot on opening day. If 60 per cent to 80 per cent of the freckled duck population is less than five birds, the freckled duck is beyond help.

My message to your magazine is simple do youself a favour and check the figures. Wild risks losing credibility (and sales) by supporting uninformed city-based interest groups such as CADS. Support them if they are honest and really care about the conservation (wise use) of resources. The facts do not cease to exist because CADS chooses to ignore them.

Bob Gough Lithgow, NSW

...The information in our postcard is factually correct, and based on ample scientific evidence.

Department of Conservation, Forests & Lands Wildlife Ecologist Ron Brown stated in his paper, 'Occurrence of Lead Shot in Victorian Wetlands', that 350.9 tonnes of shot (no 6 size) were deposited in the wetlands environment in 1987...

In 1992, the Department of Conservation & Environment's (formerly CF&L's) Flora & Fauna Guarantee Unit's Action Statement no 32, by G Grossek, Game Management Unit, estimates that 190 tonnes of lead were deposited in wetlands open to duck hunting in Victoria in the 1990 season, and 235 tonnes in 1991.

Another important study was conducted by Dr Michael Hindmarsh, Veterinary Pathologist of the Victorian Department of Agriculture, Benalla, at another Victorian wetland, Loch Garry, in 1990. Sampling of swamp sediment revealed a mean of 209 000 lead pellets per hectare. This is about nine kilograms of lead per hectare. Lead shot was banned in the USA in 1992. The South Australian Government has now banned the use of lead shot. The Northern Territory Administration has banned lead on certain wellands and is phasing out its use altogether. The former Victorian Labor Government intended to phase out the use of lead shot over three years from 1993 on the then Department of Conservation & Environment.

Dr Ian Norman, Senior Research Officer at the Arthur Rylah Institute (the scientific division of the Department of Conservation & Environment), stated in a memorandum dated 4 March 1985: 'Large numbers of freckled duck are included among those species who are shot illegally. Shooting at such sites has been shown to remove up to 80 per cent of freckled duck present on opening days.'

The Department of Conservation & Environment introduced a compulsory Waterfowl Identification Test for hunters in 1990. Unfortunately, freckled ducks are still being, killed in large numbers when they requent Victoria. For example, 128 freckled ducks were recovered in 1991 after being ligally shot by hunters. This year there were recovered after the work of the control of the victoria yet for the victoria

Richard Loyn, Senior Research Officer, Flora & Fauna Branch, Department of Conservation & Environment, in his paper, 'Assessing and Managing the Impact of Duck Hunting in Victoria-A New Approach', published in 1991, states: Some protected species are more likely than others to be shot over opening weekend. Distinctive profued species are more likely than others to be shot over opening weekend. Distinctive profued in the property of the proper

The Royal Australasian Ornithologists Union published a conservation statement booklet, The Preckled Duck by John Martindale. Martindale states: The freckled duck is one of Australia's rarest and least known ducks and is listed among the ten rarest waterfowl in the world.'

The Western Australian Government banned duck shooting in 1990...

Laurie Levy Wildlife Campaign Director Coalition Against Duck Shooting North Melbourne, Viç

Baaa

I am writing in response to the letter from Peter Ireland in Wild no 46.

Like Peter, I too thought that wool, being organic, was far more 'environmentally friendly' than synthetic fabrics. But over the last few years I have come to realize that even

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A classic. Ultra-light unleadedpetrol/Shellite stove. Lid can serve as a cooking pot. Efficiency can be increased by using an optional mini-pumpgreat for cold weather. Weight: 0.55 kilograms Packed size: \$\phi\$ 9.5 x 13 centimetres

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Weight: 0.6 kilograms Packed size: 13 x 13 x 8 centimetres Tank capacity: 0.13 litres Burning time: 50 minutes





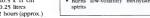
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seemingly benign fabrics such as wool aren't as they initially appear.

In Australia large tracts of native forest have been cleared for wool growing, and introducing herbivorous, cloven, hard-footed animals such as sheep to these cleared lands and to our fragile rangelands causes the land degradation that we see today, such as erosion, salinity and desert encroachment. The processing of wool is also environmentally damaging. The spring 1992 issue of the CSIRO's magazine Ecos has an article about wool processing which states: 'Almost two-thirds of the weight of raw wool can comprise grease, dried sweat, skin flakes, dirt and vegetable matter, and getting wool clean or scoured requires billions of litres of water, detergent and chemical solvents. In addition, \$60 million worth of chemical pesticides are sprayed on to sheep each year to control lice and flice

When dyeing wool, chromium is used to fix the dye to the wool to resist fading in the wash. Small amounts of Cr(VI), a proven carcinogen, are released in the dye effluent.

It must be noted that wool-growers and processors recognize the potential problems to the environment that the wool industry poses, and that in the past 40 years considerable research and development has occurred on environmental issues associated with

I concur with Peter's last paragraph: there needs to be a thorough evaluation of synthetic versus natural fibres so that people can make an informed decision when purchasing garments.

Andrew Torning Pendle Hill, NSW

Fall from grace

Thanks for the free waterfall walks booklet (in Wild no 46). Now I'll be honest, I haven't visited any of the falls you mentioned, so I look forward to the opportunity. But what's this crap about 'no notable falls to interest bushwalkers' in South Australia?

Haven't any of you heard of Edeowie Gorge? It flows out of the north-west of Wilpena Pound. This can be done as a through walk, starting at the (private) property Edeowie Station (please get permission). This way, you can do the walk into the Pound with one night spent at the base of Kanalla Falls. There are few campsites and, as on most gorge walks, visitors should be extremely sensitive to the environment. The trip to cross these falls is an 'interesting' reach round the corner at the top, with your backside hanging over the edge! From here, it's a short walk to the even more

impressive Glenora Falls. Again, an interesting crossing along a narrow ledge, and you are on your way to the top of the gorge, and out into the Pound.

In the winter, or spring, with these falls flowing, this walk is magnificent. The falls themselves are impressive, and well worth the effort. All this is merely added value to the rugged beauty of the Flinders Ranges. It's a 'they' are trying to increase visitors, and build a resort!

Love the magazine, keep it up. And how about you organizing a point of contact for general protest and environmental support?



I'm sure this would greatly increase the number of individuals getting involved in iccine

> Mark Dudley Adelaide, SA

Iohn Chapman comments that the falls described above are attractive enough when flowing, but that they only flow for a small part of the year. All the walks described by Chapman have permanent flows and start on public, not private, land. Editor

Hn the creek

I refer to Paul Atkinson's otherwise excellent article on navigation in Wild no 45.

Paul's discussion of magnetic variation and how to apply it may be fine for those living south of the Brisbane Line (well, almost), but if you use his 'GMS' acronym (Grid to Magnetic: Subtract) in much of Western Australia, or the rest of the world, the result you get is spelt 'LOST'!

Magnetic variation has three alternatives East. Nil or West. If the variation is west (of true or grid north) it must be added to get a magnetic bearing from a grid or true bearing from the map. If you subtract it, you double the error

A useful mnemonic that's been around for ages is 'Variation West, Magnetic Best: Variation East, Magnetic Least'...This works. to my knowledge, throughout the world...

Readers should be aware of the following

incident. A climber was using a twist-lock

Julian Yates North Perth, WA

karabiner while bridge-swinging on a static rope. The karabiner was the attachment point between the rope and the harness. He did not do anything unusual during the jump and to me it sounded like the type of situation that

High fivers warned

would occur with a lead climbing fall (which would, of course, be on a dynamic rope). Somehow the karabiner gate was opened at the moment when the karabiner was loaded. with the result that it deformed and the 'victim' was very lucky it didn't open up just a little more and send him for the ultimate of all bridge swings. The karabiner was virtually new and was functioning properly when it was clipped into the harness and rope. The lesson seems to be not to use twist-lock karabiners in applications where the karabiner is unloaded then loaded in an uncontrolled way It is better to tie the rope directly into the barness

> Lucas Tribey Mt Victoria, NSW

People power?

Being a long-time reader of Wild magazine, I have watched with interest as your magazine's message has become increasingly green in flavour-nothing wrong with that, of course; our sick, decaying world needs all the help it can get. Although I feel that your editorial message is always well written and most interesting-as is the rest of the magazine, for that matter-I cannot help thinking that you have overlooked the major issue that is threatening our environment today.

Contrary to popular belief, it is not the destruction of our planet's forests, the hole in the ozone layer, or even global warming that is the root cause of our environmental worries. The answer is much closer to home-too close for most people to talk about. I'm talking about overpopulation. That's right—too many of us!

If mankind numbered in the millions, instead of billions, there would be no pollution, no deforestation, no global warming; in fact, not even a chance of a world war...

G D Hollingworth Western Creek, Tas

Mum's the word

This letter is in response to the child/baby carrier survey in Wild no 45. As an addition to the carriers surveyed, I can thoroughly recommend the Meh Tai baby sling made by the Nursing Mothers Association of Australia, It's medically approved, and recommended by Choice magazine. I have used it for both my children and have carried a child from birth up to about two years. It's simple to use, easy for one person to put on, can be tied in a variety of ways, and can be worn on the front or back (for older babies). It comes with clear instructions or your local friendly Nursing Mothers may give you a demo. It's cheap-\$19.95 for cotton, \$21 for denim and \$24.95 for cord-washes and dries easily, folds up small when not in use. When we go on day walks I always pop it in a pocket so that if our three-year-old tires he goes in the frame pack and the 18-month-old goes in the Meh Tai. It's available by mail from Merrily Merrily Enterprises, PO Box 231, Nunawading, Vic 3131add ten per cent for postage—or from a local group of Nursing Mothers-look in the phone book-no postage payable...Nursing Mothers also sells excellent parkas and pants for children, which Wild readers may be interested in.

We've been reading Wild since issue 5 and always enjoy it. Keep up the good work. Tess Carrad

Mt Riverview, NSW

Newly-wed confesses

Recently I bought my first issue of Wild, and my wife and I enjoyed every page. Congratulations on a fantastic magazine!

Due to work commitments, I've not been able to go bushwalking for some time, but recently I got married and my wife is encouraging me to get out in the wild again. Your magazine has really inspired us to get

We plan to do the Hinchinbrook walk in July. We went to the resort there for our honeymoon, and can't wait to do the walk.

Thanks again for your great magazine. Steve Prott

Richmond, NSW

Packing it in

I was disappointed to see that the brand name Summit Gear had escaped all the editorial staff at Wild when they edited the 'Rucksacks for Bushwalking' survey by Simon Head in Wild no 46

Summit Gear was not included, or even invited to submit rucksacks for the survey. Mr Head is aware of our existence. Do I detect a degree of bias? Whilst not having a huge advertising machine behind us to promote our products, we do in fact produce an extremely tough and effective range of rucksacks for bushwalking...

David Murphy Director Summit Gear Pty Ltd Katoomba, NSW

In planning the rucksack survey we considered Summit Gear but, as with all Wild surveys. included only brands reasonably widely available through outdoor shops, Summit Gear, together with a number of other brands, failed to meet this requirement which is designed to prevent buyer frustration-and to restrict surveys to a manageable size. Editor

The road less travelled?

I've just spent two weeks walking through Wollemi National Park from Glen Alice to Martindale. Most of my route lay on Mt Coricudgy Track.

Wollemi National Park was created largely for its value as wilderness. Mt Coricudgy Track is one of the very few access roads. It cuts right across the park, and is open to the public.

The track is in appalling condition [which] makes it of no use as a through road. It is unnecessary, bisects the park, and compromises the park's wilderness value. It has also damaged several rain-forest gullies and exposed Aboriginal rock carving sites to vandalism. I've written to the Minister for the Environment, and the National Parks & Wildlife Service, asking for closure of the track...

Deb Rossell Eltham Vic

Rat race

I would like to point out to Roger Lembit some tenable considerations he and the Confederation of Bushwalking Clubs Inc could use regarding their attitudes to huts and structures in National Parks (Wild no 44).

The land on which Pippens Hut is built has been freehold since 1820. There is heritage in this place for people displaced by the flooding of the Burragorang valley. They are an indelible, intrinsic part of this area now. The 'wilderness' has been changed by man since the bushrangers rode these valleys. Then came the graziers, villagers, silver miners, and now tourists. Just 12 kilometres down the road from Pippens Hut is the silver-mining town of Yerranderie, freehold with an airstrip, privately restored and part of our heritage, but more visible than the hut at which Mr Lembit launched national hyperbole in Wild magazine using a ten-year-old photograph.

Human endeavours cannot be obliterated by removal of structures offensive to the 'wilderness seekers' who live in their rat race weekly, and search for pristine wilderness on the doorstep of a polluting megalopolis whose need for water flooded the lands of these people's families; who push for the removal of offending remnants of a way of life so that their playground is pure of reminders of past human interference...

Pauline Downing Camden, NSW

Readers' letters are welcome (with sender's full name and address, for verification). A selection will be published in this column. Letters of less than 200 words are more likely to be printed. Write to the Editor, Wild, PO Box 415, Prahran, Victoria 3181.

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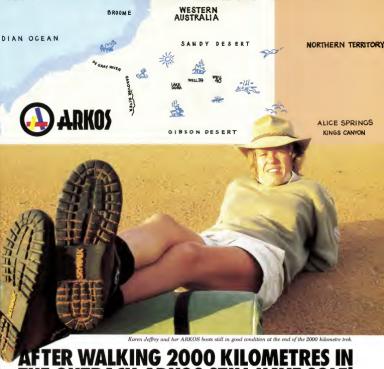
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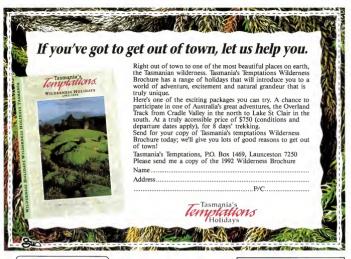
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